KPMG Consulting

PROGRAM EVALUATION AND COST RECOVERY STUDY: ASSESSING THE CANADIAN CENTRE FOR OCCUPATIONAL HEALTH AND SAFETY

Prepared for

Canadian Centre for Occupational Health and Safety

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I EXECUTIVE SUMMARY

A. INTRODUCTION

The Canadian Centre for Occupational Health and Safety (CCOHS or the Centre) was created in 1978, by the *Canadian Centre for Occupational Health and Safety Act*, which mandates CCOHS to promote the fundamental right of Canadians to a healthy and safe working environment. CCOHS operates under a tripartite council that includes representatives from business, labour and government.

CCOHS contracted with ARC Applied Research Consultants and KPMG to carry out a program evaluation and cost recovery assessment. This study has reviewed all aspects of CCOHS performance and financing. Results from this study are intended to provide the foundation for the development of a new business plan that will see CCOHS operating on a break-even basis and to continue to achieve its core objective of promoting workplace health and safety. This study includes three closely related components. These components are:

- A program evaluation perspective of the operations of CCOHS, including an assessment of the relevance of the program and the effectiveness and efficiency of the program given its mandate.
- A review of the cost recovery initiatives implemented by CCOHS.
- Presentation of options for achieving financial viability for CCOHS. Based on the results of the first two components, the options analysis considers the current financial situation of CCOHS, the constraints it faces and the potential for increases in efficiency and revenues.

B. CURRENT STATUS OF CCOHS

CCOHS council has chosen to fulfil the Centre's mandate by operating as "a source for unbiased technical information and expertise to support the efforts of governments, labour organizations, employers, and individual Canadians to improve workplace safety and health".[1] CCOHS fulfils this mandate through a portfolio of free and priced products and services that draw upon a core collection of occupational safety and health information and the application of information management technologies. The key products and services offered by the Centre are the free Inquiries Service and web site and information products and services for which it charges. The core information products of the CCOHS include:

- **MSDS** – Provides access to over 120,000 of the most up-to-date Material Safety Data Sheets from 600 North American manufacturers and suppliers.

[1] CCOHS, *2001-2002 Estimates: Report on Plans and Priorities*, 2001, p.5.

- **CHEMpendium** – A comprehensive resource of chemical hazard information for workplaces and the environment.
- **FTSS** – Similar to the MSDS product, but contains 54,000 French-language Material Safety Data Sheets.
- **OSH CanData and InterData** – CanData represents a unique collection of Canada's OHS databases and publications, including detailed information about OHS resource people and organizations, research studies as well as other hard-to-find information. InterData represents an OHS database with an international flavour providing access to several databases produced by two leading safety and health centres – the International Labour Oranization's (ILO) *International Occupational Safety and Health Information Centre* and the *Institut national de recherche et de sécruité* (INRS) in France.
- **OSHLINE with NIOSHTIC** – Until 1998, the U.S. National Institute for Occupational Safety (NIOSH) produced its NIOSHTIC database that provided users with access to current references from international, peer-reviewed health and safety publications. CCOHS has taken on the responsibility of indexing the world literature to fill the gap left by NIOSH's decision to discontinue its production.
- **RTECS** – The Registry of Toxic Effects of Chemical Substances (RTECS) from NIOSH provides toxicological information with citations on over 130,000 chemical substances.

The CCOHS funding levels peaked in the early 90s and, over ten year period from 1991-92 to 2000-01, have declined substantially. CCOHS has three main sources of funding/revenue – voted public appropriations, supplementary estimates, and revenues from external sources (cost recovery revenues). Since 1991-92 funding from federal sources has decreased by 71% while revenue from other sources has increased by 95%. Overall funding to the Centre is more at "risk" now than it was ten years ago due to increased dependence on supplementary votes rather than on funding from the main vote.

The past decade has also seen changes in the composition of CCOHS revenue sources. There have been changes in the balance between product sales and revenues from consulting projects and other sources. The share of revenues coming from product sales has decreased and the proportionate reliance on consulting projects, publications and other revenue has increased.

Over the five year period 1996-97 to 2000-01 CCOHS revenues from cost recovery accounted for an average of 64% of the Centre's total funding. This compares with an average share of 46% during the 1991-92 to 1995-96 period and only 8% in the 1986-87 to 1990-91 period. The level of cost recovery achieved by CCOHS is very high compared to that achieved by comparable information agencies in Canada and internationally.

CCOHS, reflecting its tripartite governing structure, serves a wide range of users both internationally and within Canada. Analysis performed for this study found that CCOHS has

been most successful, in terms of sales, at penetrating the manufacturing, oil, gas, and mining sectors, federal government departments and agencies, and the tertiary education sector. Average annual sales per account customer were $674 in 1999-2000.

In terms of operating expenditures, CCOHS has made significant adjustments to its staffing levels and associated costs since the early 1990s. Reducing staffing by almost 50% has been the main means of adjusting to reductions in funding.

CCOHS is included in Schedule II of the Financial Administration Act, which governs its financial management. As a Schedule II organization, CCOHS encounters a number of administrative limitations that impair its ability to realize the full benefits of its revenue generating activities compared to private sector organizations and crown corporations. These limitations include:

- An inability to finance its activities through working capital, and the effects of rollover provisions given the Centre's revenue cycle. CCOHS typically receives 28-33% of its proceeds from both the sale of products and other income in the final quarter of the year. This results in a situation where CCOHS may lose revenue due to the limited rollover provisions it is allowed.

- These same rollover provisions also affect the Centre's ability to accumulate funds for product development in the event that revenues exceed operating costs.

- The amount of sales occurring in the final quarter of the year also impacts business planning and working capital. Although the sale has occurred, cash collection does not occur until the following year, and expenditures cannot be made until final sales figures are known, resulting in a deferral of spending.

C. ISSUES AND CHALLENGES FACED

The last ten years have been difficult for the CCOHS. The Centre has had to significantly reduce its resources as the total level of funding has fallen, operate with a very lean management and administrative overhead, increase the amount of funding generated from the sale of products and services, and adapt to a rapidly changing environment for the electronic management and distribution of information.

Going forward, the organization faces a number of significant challenges:

- Public appropriations have declined to the point where they provide of the order of 38-40% of the Centre's total funding. A significant proportion of this funding is "at risk", that is, is not part of the main voted appropriation for the Centre but comes from supplementary appropriations where continuity and stability of funding cannot be taken for granted. For example, the Centre's 2001-02 appropriation of $2.25 million included a one-time $0.6 million supplementary advance from the Treasury Board Contingencies Vote.

Projected funding levels for 2002-03 and 2003-04 exclude this amount, giving CCOHS a projected program funding level of $1.66 million.

- Dependence on revenues from cost recovery has risen from about 20% of funding ten years ago to over 60% now. Recent performance trends suggest that revenue levels have hit a plateau and may in fact fall unless CCOHS can update its existing products and develop new products to maintain the value it provides for users.

- The combination of the above two trends suggests that CCOHS faces a combination of static or declining revenues from cost recovery and potentially unstable public funding.

- CCOHS has achieved a relatively good penetration rate for its priced products but could potentially increase both the number of customers and number of products sold per customer (i.e., revenue per customer). However, more intensive marketing efforts targeting potential paying customers will require additional expenditure on marketing, sales and customer support function, as well as a continuing flow of improved and new products and supporting systems—areas in which upfront expenditures will need to be incurred before any additional revenue can be realized.

- The Centre's ability to achieve the full benefits from its external revenue generating activities is somewhat limited by the administrative requirements imposed by the FAA, particularly limitations related to the use of working capital and the ability to rollover revenues from one year to the next. In turn, these limitations affect the Centre's ability to accumulate funds for such activities as research and new product development.

- Provincial level organizations have increased the availability of free OHS information on their Internet sites.

- The CCOHS receives payment for subscriptions up front in one fiscal year. The delivery of the product then becomes a liability for the next year since it is a subscription product. This presents a challenge to the Centre in that continuous upgrades and improvements are required to the subscription products in order to maintain sales and encourage customers to renew subscriptions.

D. PROGRAM EVALUATION

A key component of this review was an evaluation of the operations of CCOHS, including an assessment of the relevance of the program and the effectiveness and efficiency of the program given its mandate.

The ultimate objective of the CCOH is to improve workplace health and safety. This objective involves CCOHS being recognized as a national clearinghouse for health and safety

information and as the recognized leader in the provision of occupational health and safety (OHS) information to the OHS community. This community includes workers, their unions, employers, governments and related OHS professionals.

The evaluation assessed the extent to which CCOHS has achieved this recognition with leading members of the OHS community. The activities of CCOHS are related to the promotion of occupational health and safety. The benefits are improved workplace conditions that ultimately lead to fewer illnesses, fewer injuries, and fewer deaths. Reduced time loss and increased productivity are tied to these benefits. To the extent that CCOHS information is used to promote workplace change, the ultimate social benefits can be very high. It is the improvements to workplaces that are directly related to preventing occurrences. If CCOHS activities led to a 1% reduction in these risks, 3,750 injuries and eight fatalities would be avoided. These data and current research on the value of life and accidents prevented indicate that Canadian society would assign a value of approximately $179 million to this reduction.

It is not possible to establish the number of injuries, illnesses and deaths prevented as a result of CCOHS activities directly. Many factors influence these variables and determining the independent impact of CCOHS is not feasible. The extent of the improvements in workplace conditions, attributed by users to the information disseminated by CCOHS, is used as a proxy measure of the health and safety impact of CCOHS. Our analysis, based on interviews and surveys, found that the intended effects on workplace conditions do occur.

Current funding decisions for organizations like CCOHS that reduce workplace risks were made when the estimated benefits of risk reduction were lower than current estimates. New evidence on higher payoffs to risk reduction implies that society should increase the resources devoted to reducing workplace risks.

The economic rationale for government support of programs and activities has two sources. These are:

- A fairness or equity rationale in which particular groups in society are supported through program activities.

- An economic efficiency rationale in which the program is justified because market processes do not provide the best outcome from the point of view of society. This is generally referred to as the "market failure" rationale.

Support for CCOHS is consistent with both of these sources of rationale for the program. There will be many types of information that have a value to society exceeding their costs of production that will not be produced if firms have to recover all of their costs in doing so. This is the essence of the market failure issue for information as it applies to CCOHS. Providing more information to workers is an alternative and cost effective enforcement mechanism for governments in the area of regulating occupational health and safety. The causal linkages from activities to outputs to program impacts and finally to overall objectives are clear and have been confirmed by the results of this evaluation.

CCOHS provides information through a variety of products and services, some of which are available for free. Surveys were conducted of current and former purchasers of CCOHS products, users of CCOHS Inquiries Services and users. Some of the key findings include:

- The overall level of satisfaction with the CCOHS web site among respondents was 82%
- Seventy two per cent of web site users' use of CCOHS information relates to current or future changes to the workplace that may improve occupational health and safety.
- Overall, 69% of current purchasers of CCOHS products indicated that the use of the product is related to promoting health and safety improvements in the workplace. Other uses for CCOHS products and services indicated by respondents; Workers' Compensation Claims or appeals; complying with OHS regulations; and information on workplace chemicals.
- The nature of the information produced by CCOHS is such that the value to a firm, and to society as a whole, increases as more people access that information. Overall, current purchasers indicated that the information purchased from CCOHS is used by one to ten individuals in their organization, 4% indicated that the information is used by more than 1,000 people.
- Fifty six per cent of purchasers indicated that CCOHS products purchased were being used to promote changes leading to improvements in workplace health and safety.
- Of current purchasers of CCOHS products, 87% were satisfied with the usefulness of the product; 88% were satisfied with the clarity of the information, 83% were satisfied with the scientific validity of the product; and 87% were satisfied with the reliability of the information provided.
- Seventy five per cent of users of the CCOHS Inquiries Service surveyed indicated that their use of CCOHS information is related to either current or future changes to their workplace that may result in improved workplace health and safety.
- Based on interviews conducted with key informants, there is widespread support for the continued provision of free services; particularly non-technical information provided to individual workers.
- The majority of key informants interviewed believe that CCOHS products/services meet needs that cannot be met by other sources of information. In a small number of cases other sources of information are used but CCOHS is considered the primary source of OHS information.

- A key component of the mandate of CCOHS is to facilitate partnerships among workers, unions, employers and government with respect to OHS. The majority of respondents believe that the Centre has done this to some extent. Many noted that more could be done but that the Centre has done as much as can reasonably be expected given the budget constraints of CCOHS.
- Provision of free services is strongly supported by an overwhelming majority of key informants interviewed. According to respondents, charging a fee for services currently provided for free would result in far fewer workers accessing the information they need to protect themselves.
- The general feeling among interviewees is that basic information, particularly information intended for individual workers, should continue to be provided free of charge by CCOHS.

E. ADHERENCE TO THE FEDERAL POLICY ON COST RECOVERY

The Canadian Centre for Occupational Health and Safety Act does not explicitly define the powers of CCOHS to set fees and collect revenues, other than through Section 6-1-(g) – *to expend, for the purposes of this Act, any money appropriated by Parliament for the work of the Centre or received by the Centre through the conduct of its operations.* Up until 1989 the Centre was a fully funded government department with an annual operating budget of $10 million. In 1987, the Centre implemented a limited level of cost recovery aimed at recovering some of the "out of pocket" expenses associated with the production of CDs. In 1989 the Centre was directed by Treasury Board to become financially self-sufficient through cost recovery by 1991. The dramatic reductions in appropriations resulted in significant staff reductions and a corresponding decrease in public service.

Between 1987 and 1996 CCOHS progressively increased its cost recovery revenues to the point where they peaked at $4.65 million, which represented 68% of total funding (Main Estimates Vote, Supplementary Vote(s) and cost recovery revenues) in 1996. Revenue levels from cost recovery have remained relatively constant since 1996, varying between $4.1 and $4.65 million.

The Centre's management has taken the approach that fee revenues can be generated from certain products and activities, but that core information products and services should be provided free of charge. As a result the Centre has three distinct product categories:

- A free, confidential OHS Inquiries Service
- Marketing and sale of "packaged" combinations of OHS information.
- Conduct of OHS collaborative projects on a contract or shared-cost basis with federal, provincial and international partners.

The federal government's cost recovery policy states that, "It is government policy to implement user charges for services that provide identifiable recipients with direct benefits

beyond those received by the general public, unless overriding public policy objectives would be compromised."

CCOHS products and services provide a mix of public and private benefits, in that CCOHS products and services:

- Produce **externalities**, that is, the information and guidance provided produce broader social benefits—by contributing to the management of workplace health and safety, and reducing work-related fatalities, injuries and illnesses, and ultimately, reduce demand on, and costs of, health and social services.

- Are **non-rival** in consumption, that is, consumption (use) of the information made available by one user does not affect the availability nor consumption of this information by other users, and the marginal cost of making information available to additional users is, in relative terms, close to zero.

- **Private benefits** accrue to the consumers of OHS information made available by CCOHS.

- The CCOHS inquiry and web services are largely **non-excludable**. That is, CCOHS is not able to (nor does it wish to) readily control access to these services through the use of fees.

- The CCOHS "packaged" OHS products are, to a much greater extent, **excludable**. Access to these value-added products by users— who are fewer in number, have continuing needs to access and apply a broader range of OHS information in their operations, and derive time and cost savings from such use—can be controlled and administered more readily.

The above characteristics of the products indicate that they provide a mix of both public and private benefits and that cost recovery fees are appropriate as long as they do not impede the achievement of the organization's mandate and its contribution to broader social benefits for Canadians. CCOHS products and services fit the definition of information products used in the federal government's *Cost Recovery and Charging Policy* and, to a certain extent, these products and services play a role in informing the public about dangers to health and public safety. The policy states that this type of information should not be subject to cost recovery.

Overall, the approach to cost recovery at CCOHS adheres to the requirements of the federal government's *Cost Recovery and Charging Policy* while remaining sensitive to the overriding importance of the Centre's legislated mandate, to support improvements in workplace health and safety.

Based on our findings, we believe that CCOHS is at the limit of what it can achieve in cost recovery revenues without harming its ability to achieve its mandate. Users of its priced products are already making a significant contribution to the funding of its core activities, which support the provision of both priced and free services. The rationale for government support for the core CCOHS activities is that the outputs are valuable to society (the outputs

yield significant social benefits), they cannot be supported without government covering their costs and no other organization is likely to supply these outputs if CCOHS does not.

F. FINANCIAL OPTIONS

A key objective for this review is to present and assess options for providing CCOHS with more stable and sustainable funding. These options draw on findings from an analysis of the Centre's current financial position and performance. Each potential options focuses on generating growth in the funding base. We have not proposed an option to reduce expenditures given that CCOHS has already made significant cuts in its resources and streamlined operations in response to past reductions to funding.

CCOHS must balance a number of guiding principles in seeking ways to strengthen its funding base. Key among these are:

- CCOHS must provide a range of products and services that enables it to satisfy its mandate.
- CCOHS must keep current its core information collection and the information technologies that support the collection, the Centre's web site and many of its priced products. This continuing development is central to the provision of up-to-date and comprehensive OHS information to users.
- Existing and new revenue generating opportunities must cover their direct costs, including benefits and other direct overheads, and make a contribution to the Centre's core costs.
- Priced products and services should not be in direct competition with existing private sector products.

1. Level of funding required

CCOHS has been able to operate over the past five to eight years by staying highly focused on meeting immediate needs and minimizing expenditures including those designed to maintain the integrity of its systems. Human resource levels have been held down and the use of contracted professional services increased to meet peaks in demand and assist with collaborative projects.

The Centre's total annual funding requirement has averaged approximately $7 million over the last 3-5 years. If the value of service provided without charge by other departments is excluded, this annual requirement falls to approximately $6.7 million. A continuation of this level of funding will only enable CCOHS to maintain a "bare bones" scale of operation and limit its ability to support and enhance current products and distribution methods, and develop new products to meet emerging OHS needs.

We estimate that a further $1.05 million in annual funding will be required to strengthen the Centre's systems and ensure that its products and services continue to provide value to users, to take its total annual funding requirement to $7.7 million. This additional funding should be allocated to the following expenditure categories, and would support both public service and cost recovery programs:

- Marketing and client support activities.
- Technology infrastructure renewal.
- Information-related costs.
- Product development and research.

2. Options available to CCOHS to increase funding levels

Based on information gathered in the course of this study, we believe CCOHS has five potential funding options.

Option 1 – Increase product prices. This option calls for an across the board increase in cost recovery revenues, over and above increases to allow for inflation. Ideally, this increase would be across-the-board, but it will be necessary to make allowance for the likelihood that acceptance and affordability will not be uniform across all customer segments and products, and demand from some key user groups could be adversely affected. Based on the research findings, we expect that an average increase of 10-15% across all products is probably the maximum achievable, implemented over two years. An increase of this magnitude may also result in some customer losses (which should be recoverable in the medium-to-long term). An increase of 10–15%, combined with customer losses of 3–5% would result in a revenue gain of about $275,000 to $400,000. Additional marketing costs (additional resources and promotional activities), royalties (which can be significant, e.g., 13% for Legislation Plus products), and payments to distributors would consume a significant proportion of the gross margins on these sales, leaving only a small contribution towards the Centre's other funding needs.

Option 2 – Increase the number of account customers and/or sales per customer. Under this option, CCOHS would increase the number of account customers from the current level of just over 3,000 and/or sales per customer leading to an increase in the current average revenue per customer from the 1999-2000 level of $674. This option is one we consider high risk but also high potential gain. Risks associated with this option relate the requirement for investment in marketing resources and activities in advance of any gains in revenues, the potential to compromise the Centre's mandate in the drive to increase revenues, and an increased level of marketing activity may only serve to slow the downward trend in sales of existing key products. For example, if marketing efforts (resources plus supporting expenditures) are increased by $100,000 CCOHS would need to attract at least 148 customers just to fund the additional costs, before making any contribution to other incremental costs and generating funding for other activities.

Option 3 – Develop/market new, revenue generating products. Under this option CCOHS would maintain a continuing level of new product research and development activity linked to the Centre's research products and access to other sources of OHS information and research. This would lead to the introduction of new and updated products. The cost to address current gaps and opportunities, and establish a strengthened product development function could cost up to $0.5 million per year according to indicative estimates by CCOHS management. The potential scale and timing of revenue gains from this effort cannot be predicted at this time. We believe, based on the characteristics of past new product developments at CCOHS, that most new/enhanced products can be expected to result in incremental revenue gains rather than "breakthrough" revenue growth. Achievement of gains in this area could be facilitated by the development of an updated strategy and set of priorities for selecting projects and partners, focusing on activities that will keep the Centre's products and services, and distribution channels/media, at the leading edge. Management systems for new product development and project management should also be reviewed in developing this strategy, to ensure optimal efficiency of expenditures.

The key challenges and risks associated with this approach include:

- Need to balance focus on the mandate with the need to generate additional revenues.
- Long lead times for product development mean that revenues flows lag behind development expenditures.
- CCOHS is operating in a mature market. Opportunities for "breakthrough products" are likely to be limited.
- Ability to attract partners willing to co-fund projects, and then to manage the annual flow of funds against expenditures within constraints imposed by rollover provisions. Schedule II status also prevents CCOHS from seeking research and program grants available through other government agencies.

Option 4 – Seek a sustained increase in CCOHS voted appropriation. This option calls for CCOHS to develop and present a business case to the Treasury Board to justify an increase in CCOHS voted appropriation. This case should be based on three basic positions:

- The strong public benefits orientation in the Centre's mandate and services.
- The guidelines for applying cost recovery to information products that inform the public about danger to health and public safety.
- The significant benefits to society from improvements in workplace health and safety that lead to even small reductions in the number of workplace accidents and deaths.

As indicated in the previous section, we estimate that CCOHS needs total funding of approximately $7.7 million per year (excluding ~$0.3 million for accommodation services provided without charge) to be able to achieve its mandate. If cost recovery revenues stay at

about $4 million per year then public funding through the Main Estimates will need to be about $3.7 million. This level of funding would enable CCOHS to take a more strategic approach to the development, delivery and management of its services, and support operations and infrastructure, as opposed to managing its operations on a year-to-year basis.

A public funding level of $3.7 million requires an increase of $2.05 million over current projections of the Centre's spending for 2002-03 and 2003-04 in the government's Main Estimates, of $1.65 million. If CCOHS' appropriation remains at $1.65 million it will have to make significant resource cutbacks which, in turn, would result in an erosion of service levels and quality, and a probable fall in external revenues, and thus threaten the overall viability of the Centre.

Increasing the level of public appropriation to $3.7 million would also put CCOHS on a close to 50:50 funding basis between public appropriations and cost recovery revenues. This level of cost recovery is still high compared to similar information providers. It would enable the Centre to focus on achieving its mandate without having to overcome the significant hurdle imposed by the current 60% plus level of cost recovery.

Option 5 – Seek changes to CCOHS status under FAA. This option is not an alternative to each of the previous four but an extension under which CCOHS could gain flexibility in its financial management and planning, principally in the areas of financing working capital, managing multi-year revenue flows and financial management processes. Legislative changes would be required to move CCOHS from Schedule II of the FAA to Schedule III (i.e. a crown corporation) of amendments to CCOHS Act. We suggest that there are significant risks and delays associated with opening up the legislation which outweigh the potential benefits.

3. Preferred strategy to increase funding

We believe a strong case can be made for increased public funding of the Centre, in response to the potential impact of information production and dissemination in improving workplace health and safety. Cost recovery also provides a catalyst for the Centre to seek more efficient methods of using its limited resources. Thus, we believe the preferred strategy for CCOHS to secure a more stable and sustained funding base is to:

- **Seek an increased level of public funding** through the government's Main Estimates, sufficient to put it on a more viable long-term footing.

- **Maintain or, if possible, slightly increase current dollar levels of cost recovery revenue**. This could be done through careful price increases for priced products, concentrating on those that enjoy strong advantages over alternative products and/or are achieving a consistent growth in demand or where current prices are out of line with costs and contribution levels.

We believe this strategy recognizes that growth in revenues will not occur overnight, and will depend on the maxim of "spending money (in advance) to make money". Funding for this advance activity will need to come through public appropriations. Any subsequent

increases in contributions from revenue growth, which cannot be taken for granted, will be used to support the enhancement of the CCOHS core information and systems infrastructure.

G. RECOMMENDATIONS

The recommendations in this report are based on the findings of this study. The Centre is operating in an environment of uncertainty with its history of annual supplemental appropriations. The Centre has been living off its capital, making limited investments in maintaining its core resources and systems, including its human resources. Further reductions would threaten its long term viability. Our recommendations to ensure continuing financial viability are as follows:

Recommendation 1 - CCOHS must provide a range of products and services that enable it to satisfy its mandate—a source for unbiased technical information and expertise to support the efforts of governments, labour organizations, employers and individual Canadians to improve workplace safety and health—and undertake supporting research and maintain an operational infrastructure that ensures it can maintain and enhance this performance.

Recommendation 2 - The Centre should continue to offer free, confidential access to its Inquiries Service and web site (OSH Answers). These are the principal means of responding to citizens in need of specific OHS information.

Recommendation 3 - The Centre should ensure that opportunities to use cost recovery to generate revenues do not impede the delivery of the Centre's products and services, or divert attention from the achievement of the mandate. In particular, the Centre should not pursue revenue opportunities unless they significantly advance the OHS objectives.

Recommendation 4 - CCOHS must keep current its core information collection and the information technologies that the collection, the Centre's web site and many of its priced products rely on. This continuing development is central to the provision of up-to-date and comprehensive OHS information to users. The Centre needs to develop an updated strategy and set of priorities for selecting projects and partners, focusing on activities that will keep its products and services, and distribution channels/media, at the leading edge. Management systems for new product development and project management should also be reviewed in developing this strategy, to ensure optimal efficiency of expenditures.

Recommendation 5 – Continuation of the current funding structure, under which the Centre's annual funding through the Main Estimates if projected to stay at $1.65 million while achieving cost recovery revenues of $5.8 million is not feasible. We believe the Centre will need total annual funding of approximately $7.7 million in order to satisfy its mandate and continue to develop its products, services and supporting systems. Public funding through the Main Estimates should be increased to approximately $3.7 million given that cost recovery revenues are likely to remain in the $4.0 – 4.4 million range. We believe a strong case can be made for increased public funding of the Centre, in response to the potential impact of information production and dissemination in improving workplace health and safety. Even small improvements in occupational health and safety can have significant

paybacks for society, because of the high social costs and economic impacts of workplace injuries and accidents.

Recommendation 6 - CCOHS should maintain or slightly increase current levels of cost recovery revenue. Scope exists for increases in product prices – focusing on those products that enjoy strong advantages over alternative products and those that are achieving consistent growth in demand.

Recommendation 7 – CCOHS can strengthen its marketing efforts to increase the number of customers from industry segments that have good potential for expansion, and to increase average sales per customers in segments where potential sales of the most popular products have not been maximized. This is dependent upon the financial resources being made available.

II INTRODUCTION

A. PROJECT OBJECTIVES

The Canadian Centre for Occupational Health and Safety (CCOHS or the Centre) was established to promote the basic right of all Canadians to a healthy and safe workplace. CCOHS operates under a tripartite council with representatives from workers and their unions, employers and governments. CCOHS contracted with ARC Applied Research Consultants and KPMG Consulting to carry out a program evaluation and cost recovery study, reviewing all aspects of performance and financing of CCOHS. This study to review the programs of CCOHS and its cost recovery initiatives provides the foundation for the development of a new business plan that will allow CCOHS to operate on a break-even basis and to continue to achieve its core objective of promoting workplace health and safety.

This study includes three closely related components. These components are:

- A program evaluation perspective of the operations of CCOHS, including an assessment of the relevance of the program and the effectiveness and efficiency of the program given its mandate.
- A review of the cost recovery initiatives implemented by CCOHS.
- Presentation of options for achieving financial viability for CCOHS. Based on the results of the first two components, the options analysis considers the current financial situation of CCOHS, the constraints it faces and the potential for increases in efficiency and revenues.

B. METHODOLOGIES

In order to meet the objectives of this study, a broad range of data sources have been used. A number of surveys were conducted, including: a survey of 250 current product customers; a survey of 50 former product customers; a survey of 300 users of the Inquiries Service; and a survey of 500 users of the CCOHS web site. We also conducted interviews with key informants representing business, labour and government.

An analysis of the financial situation was also carried out as part of this project. This analysis focussed on the customer base of CCOHS, the approach to cost recovery and pricing, and revenues and expenditures patterns.

C. STRUCTURE OF THIS REPORT

We provide details of the current status of CCOHS, including its mandate, corporate objectives, and business performance trends and structure in Chapter III of this report.

Chapter IV describes our findings for the program evaluation of CCOHS. Issues relating to the relevance of CCOHS, program delivery, impacts and effects, cost-effectiveness and program alternatives, as well as any issues arising from our evaluation are detailed Chapter IV. Findings from our assessment of cost recovery at CCOHS are provided in Chapter V. An analysis of the options available to CCOHS to increase its funding base is found in Chapter VI. In the final chapter, Chapter VII, we provide key conclusions and recommendations based on the results of this study.

III CURRENT STATUS OF CCOHS

This chapter of our report provides the context for the subsequent presentation of findings relating to the program evaluation, the cost recovery analysis and the assessment of financial options. It summarizes key aspects of the Centre's mandate and key characteristics of its performance over the last 5-10 years, and identifies key challenges facing the organization.

Up until 1989, CCOHS was a fully funded government department with an annual operating budget of $10 million. In 1987, the Centre implemented a limited level of cost recovery aimed at recovering some of the "out of pocket" expenses associated with the production of CDs. In 1989 the Centre was directed by Treasury Board to become financially self-sufficent through cost recovery by 1991.

The dramatic reductions in appropriations resulted in significant staff reductions and a corresponding decrease in public service. This report is based on the services currently offered, which can be provided through current available funding. Many of the non-revenue generating services were dropped due to financial cutbacks.

A. MANDATE, OBJECTIVES AND KEY RESULTS COMMITMENTS

CCOHS is an independent departmental corporation under Schedule II of the *Financial Administration Act* and is accountable to Parliament through the Minister of Labour. The Centre's mandate, powers and authorities are defined in the *Canadian Centre for Occupational Health and Safety Act*, as summarized in Exhibit III-1. The focus in the Act is on the promotion of health and safety in the Canadian workplace, and the reduction or elimination of fatalities, injuries and illnesses. CCOHS has chosen to fulfill this mandate by operating as *"a source for unbiased technical information and expertise to support the efforts of governments, labour organizations, employers and individual Canadians to improve workplace safety and health"*[2]. *Governance is provided by a tripartite Council of Governors representing government, labour and employers.*

The CCOHS also operates under the *Official Languages Act* and, consistent with its national mandate, provides services in both French and English.

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2 CCOHS, *2001-2002 Estimates: Report on Plans and Priorities*, 2001, p.5.

Exhibit III-1 Powers of the Centre, as Defined in the CCOHS Act

5. The objects of the Centre are:

(a) to promote health and safety in the workplace in Canada and the physical and mental health of working people in Canada;

(b) to facilitate:

(i) consultation and cooperation among federal, provincial and territorial jurisdictions, and

(ii) participation by labour and management

in the establishment and maintenance of high standards of occupational health and safety appropriate to the Canadian situation;

(c) to assist in the development and maintenance of policies and programs aimed at the reduction or elimination of occupational hazards; and

(d) to serve as a national centre for statistics and other information relating to occupational health and safety.

6.(1) The Centre may in furtherance of its objects,

(a) promote, assist, initiate and evaluate research;

(b) establish and operate systems and facilities for collecting, recording, processing, analysing, evaluating and disseminating statistics and other information;

(c) publish and otherwise disseminate scientific, technological and other information;

(d) provide advice, information and service relating to existing or anticipated occupational health and safety problems to workers, trade unions, employers and government, to national, provincial and international organizations and to the public;

(e) support and facilitate the training of personnel in and for the field of occupational health and safety;

(f) sponsor and support public meetings, conferences and seminars;

(g) expend, for the purposes of this Act, any money appropriated by Parliament for the work of the Centre or received by the Centre through the conduct of its operations;

(h) give recognition to public or private organizations or individuals for outstanding contributions in the field of occupational health and safety; and

(i) do such other things as are conducive to the carrying out of its objects.

The implicit expectation in the mandate and powers is that society benefits from improved levels of workplace safety and health, and that, by functioning as an information clearinghouse and disseminator, CCOHS contributes to the achievement of such improvements. As described in this report, the cost to Canada from workplace injuries and fatalities is significant—estimated at approximately $18 billion per year in direct and indirect costs. Small improvements in safety performance rates can have significant payoffs.

This focus on operating as an information clearinghouse in the mandate is reflected in the Centre's Business Line Objective and Key Results Commitments, contained within the Centre's 2000-01 *Report on Plans and Priorities*:

- **Business Line Objective:**

  To provide Canadians with information about occupational health and safety which is trustworthy, comprehensive, and intelligible. The information facilitates responsible decision making, promotes improvements in the workplace, increases awareness of the need for a healthy and safe working environment, and supports occupational health and safety education and training.

- **Key Results Commitments:**

  A national centre dedicated to the advancement and dissemination of unbiased information on occupational health and safety

B. PRODUCTS AND SERVICES

CCOHS maintains a portfolio of both free and priced products and services that draw upon a core collection of occupational safety and health (OHS) information and the application of information management technologies, and undertakes a range of collaborative consulting projects intended to keep the Centre on the leading edge of OHS knowledge. The major products and services offered by the Centre are as follows:

1. Inquiries Service

The Inquiries Service provides a free-of-charge occupational health and safety information resource for Canadians. The Centre responds to telephone and e-mail inquiries, and all inquiries are kept confidential. The information provided is unbiased and considered relevant to workers, employers, unions and governments alike. Personalized service is given to each enquirer, and the Centre provides a verbal or written response depending on the nature of the inquiry. Often material is faxed or mailed to the inquirer, and referrals are made to other organizations as required.

Approximately 15,000 telephone and written inquiries are responded to annually through the Inquiries Service. In recent years the service has been extended to the Internet through the development of "OSH Answers". OSH Answers is a collection of over 2,500 frequently asked questions and answers concerning occupational health and safety that can be accessed on the CCOHS website 24 hours a day. The OSH Answers on the website were accessed 1.5 million times by Internet users during 2000-2001.

2. Information products and services

CCOHS has in excess of 60 databases available to support its information services, from which a wide variety of OHS products and services are made available in various electronic formats (CD-ROM, Internet, Intranet, diskette, tape) as well as hardcopy. These databases include Material Safety Data Sheets (MSDS) which are used for compliance with

WHMIS regulations, chemical databases, health and safety bibliographic databases, toxic chemical information sources, as well as comprehensive legislation products.

Priced products and services fall into two broad categories—"core" and "specialty"—depending on the particular data sources used to provide their component information. Core products are those that primarily draw upon the Centre's CCINFO Disc/Web service—a collection of over 20 different chemical databases that provide information relating to over 200,000 different chemical substances. The principal core information products are:

- **MSDS** – Provides access to over 120,000 of the most up-to-date Material Safety Data Sheets from 600 North American manufacturers and suppliers.

- **CHEMPendium** – A comprehensive resource of chemical hazard information for workplaces and the environment, covering transport of hazardous materials, descriptions of chemical toxicity; fact sheets on the hazards and safe use of industrial chemicals and environmental contaminants, and pesticide label text.

- **FTSS** – Similar to the MSDS product, but contains over 54,000 French-language Material Safety Data Sheets.

- **OSH CanData and InterData** – CanData represents a unique collection of Canada's OHS databases and publications, includes detailed information about OHS resource people and organizations, research studies as well as other hard-to-find information including noise level measurements, OHS software, and coroners' inquest reports on work-related fatalities. InterData represents an OHS database with an international flavour providing access to several databases produced by two leading safety and health centres – the International Labour Organization's (ILO) *International Occupational Safety and Health Information Centre* and the *Institut national de recherche et de sécurité* (INRS) in France.

- **OSHLINE with NIOSHTIC**– Until 1998, the U.S. National Institute for Occupational Safety (NIOSH) produced its highly-regarded NIOSHTIC database that provided users with access to current references from top international, peer-reviewed health and safety publications, including journal articles, research reports, books, studies and more. CCOHS has now taken on the responsibility of indexing the latest world literature to fill the gap left by NIOSH's decision to discontinue its production and makes the information available in its OSHLINE product as well as providing access to static information now contained in NIOSHTIC.

- **RTECS** – The Registry of Toxic Effects of Chemical Substances (RTECS) from NIOSH provides toxicological information with citations on over 130,000 chemical substances. The detailed profiles include toxicological data and reviews, international workplace exposure limits, references to US

standards and regulations; analytical methods; and exposure hazard survey data.

As their name suggests, the Specialty products category contains a variety of products that focus on other OHS subjects and needs. The main products in this category are:

- **Legislative Series** – The *enviro*OSH Legislation collection provides users with the complete text of federal, provincial and territorial health, safety and environmental legislation plus guidelines, codes of practice and critical standards in a convenient, searchable format.

- **ChemAdvisor** – Provides regulatory and advisory data on over 29,000 chemicals contained within the Canadian Domestic Substances List and Non-Domestic Substances List and the U.S. Toxic Substances Control Act (TSCA) Chemical Inventory database plus supporting information. The information consolidates more than 230 chemical lists from over 50 agencies and authoritative sources.

- **HRDC Labour Branch** – This is a product produced in collaboration with HRDC-Labour. It provides users with access to federal health, safety and employment standards information, including the entire Canada Labour Code, associated regulations, and guidance on their interpretation.

In addition to the Core and Specialty products, CCOHS also undertakes collaborative projects on a contracted and/or shared-cost basis with other government departments, agencies, and organizations, and provides a number of occupational health and safety related services, including training programs on a cost recovery basis. Collaborative projects undertaken by CCOHS include:

- TDG Inspectors Virtual Bookshelf with Transport Canada. This project involved the development of a web browser-based CD-ROM for Transportation of Dangerous Goods inspectors.

- A collaboration with the Ontario Service Safety Alliance (OSSA) has resulted in the customization of some of the Health and Safety Guides produced by CCOHS to address OSSA-specific requirements.

- IPS INTOX was developed in collaboration with the World Health Organization's International Programme on Chemical Safety. The goal of the project was to improve the ability of countries to deal with emergencies arising from toxic exposure.

- Ontario Ministry of Labour has engaged CCOHS in a number of projects including the creation of a CD-ROM containing Ontario and Federal Legislation, the writing of modules on ergonomics, biological hazards, physical hazards, and societal issues.

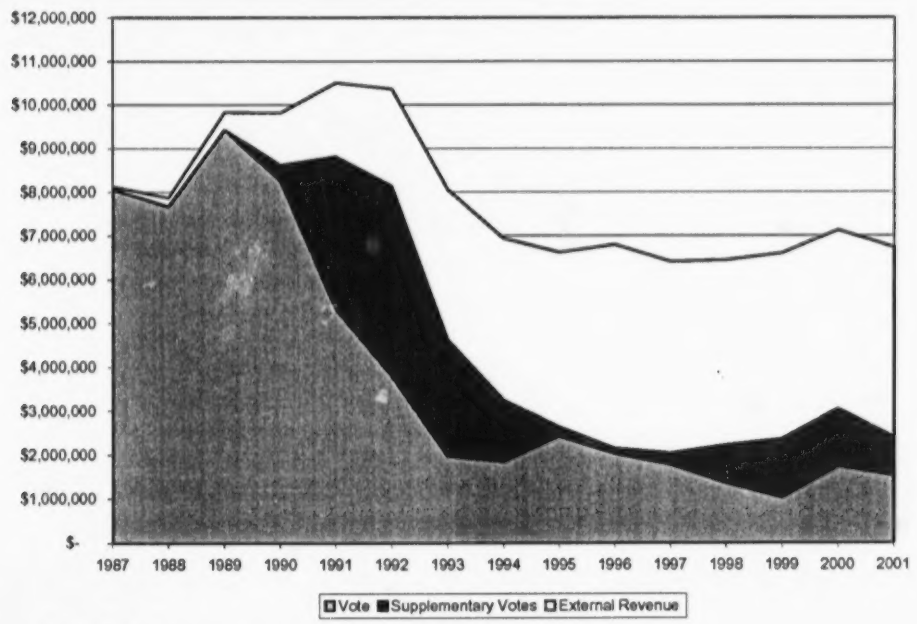
C. FUNDING AND REVENUE PERFORMANCE TRENDS

Funding from public appropriations and cost recovery to CCOHS peaked in the early-90s and declined substantially over the last ten years. The trends in the three main categories of funding—voted public appropriations, supplementary estimates, and revenues from external sources (cost recovery revenues)—which are shown in Exhibit III-2, show that:

- Total funding from public appropriations and externally-generated revenue has fallen significantly—by 35% ($3.6 million) over the ten year period from 1991-92 to 2000-01.
- Public appropriations—through the Main Estimates and Supplementary Votes (excluding costs of services provided by other departments and any amounts that were lapsed)—peaked at $9.4 million in 1988-89 and fell dramatically between 1988-89 and 1996-97. Public funding in 2000-01 was 71 percent ($5.7 million) down on the level experienced in 1991-92.
- Revenue from other sources (i.e., cost recovery revenues) has risen by 95 percent ($2.1 million) since 1991-92 to offset a significant proportion of the decline in public appropriations.

Of equal concern in the change in funding mix is the increasing reliance on supplementary votes in the Centre's overall funding authorities, which are more "at risk" than funding from the main vote.

Exhibit III-2 Changes in the Mix of CCOHS Funding



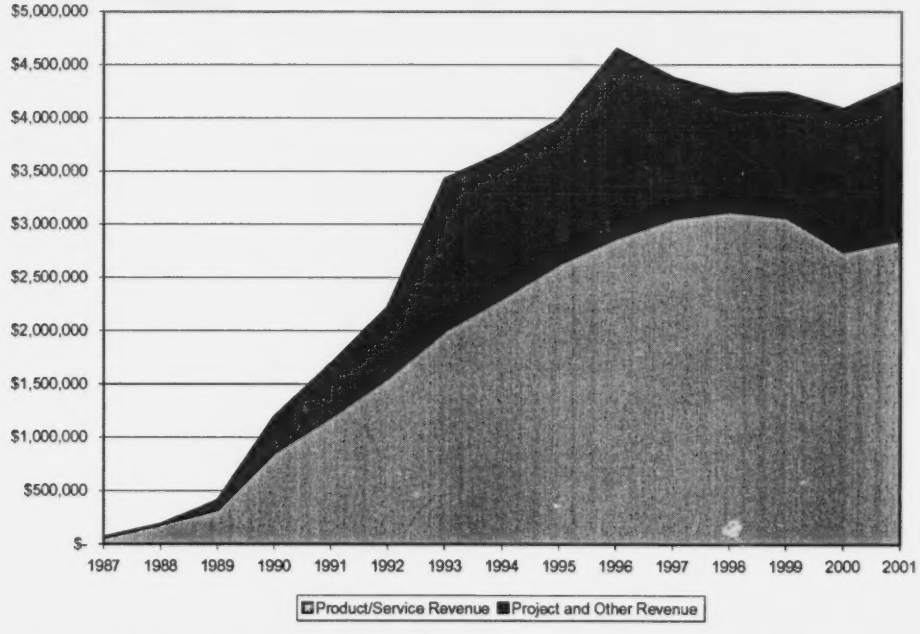
Source: CCOHS audited financial statements

The composition of revenues has also changed as revenues initially grew strongly and then reached a plateau around the $4 – 4.3 million mark. Changes have occurred in the balance between product sales and other revenue sources, and within product sales, the relative significance of different products has changed.

Exhibit III-3 shows the balance between product sales and revenue from consulting projects and other sources. This exhibit shows that:

- Product sales have fallen from a peak level of approximately $3.1 million in 1997-98 and 1998-99 to $2.7 million in 1999-00 and $2.9 million in 2000-01.
- Reliance on consulting projects, publications and other revenue progressively increased through the first half of the 1990s, and peaked at $1.8 million in 1995-96 (38% of all cost recovery revenues). Consulting projects are the major contributor to this revenue and, because they have relatively fixed terms, are inherently more unstable than product sales.
- Revenues from consulting projects and other non-product sales sources have remained relatively constant since 1995-96—accounting for an average of 30% of the Centre's cost recovery revenues.

Exhibit III-3 Revenues From Product Sales and Project/Other Sources

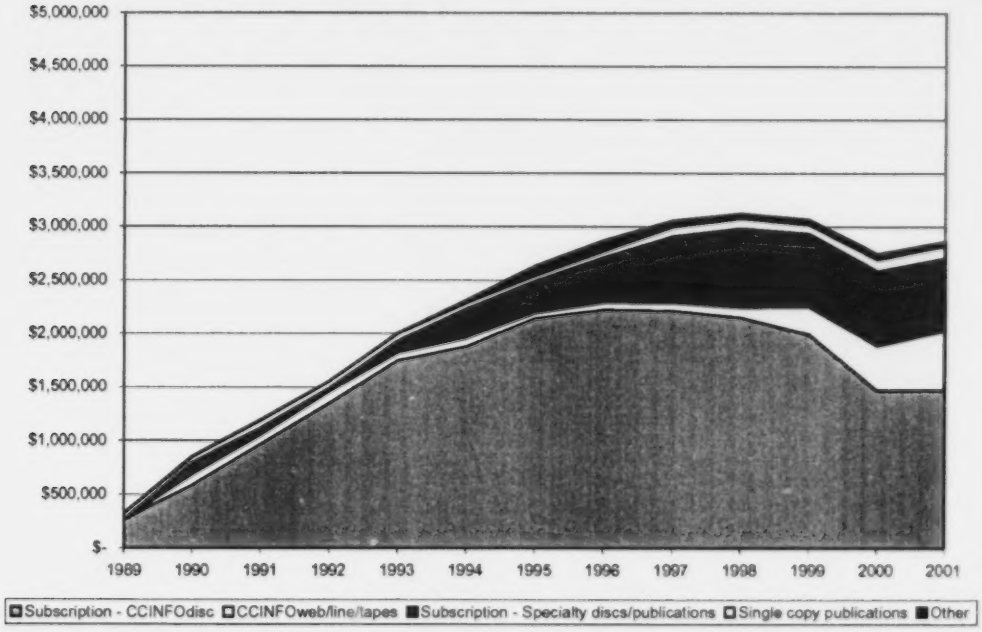


Source: CCOHS audited financial statements

Within product sales, major changes have occurred in the mix of product forms and the split between core and specialty product sales (as defined in the previous section). Exhibit III-4, which summarizes the longer-term trends in the form in which products are distributed (which are primarily derived from the Centre's CCINFO databases), shows:

- A sharp rate of decline in sales of the CCINFO Disc subscriptions—averaging almost 8% per year—since their peak year in 1995-96.
- These losses have been partially offset by increases in the sale of CCINFO web-based subscriptions—enabling users to access CCINFO data over the Internet. CCINFO web sales have grown by an average of 51% per year since 1995-96.
- Subscriptions to specialty discs and publications peaked in 1997-98 at $733,000 and have since varied between $676,000 and $696,000.
- Sales of single copy publications grew consistently throughout the period since 1995-96, with an average annual rate of growth of 16.6%.

Exhibit III-4 Trends in Product Sales Primarily Based on CCOHS Data Bases (CCINFO)



Source: CCOHS audited financial statements

The breakdown of these core product sales by specific branded products over the last five years, which is presented in Exhibit III-5, shows:

- Consistent declines have occurred in sales of OSH CanData and Interdata (an average annual rate of decline of –11.4% since 1996-97), NIOSHTIC (-11.2%) MSDS (-5.0%) and RTECS (-2.0%). In total, these four products have seen their sales decline from $1.47 million to $1.16 million.

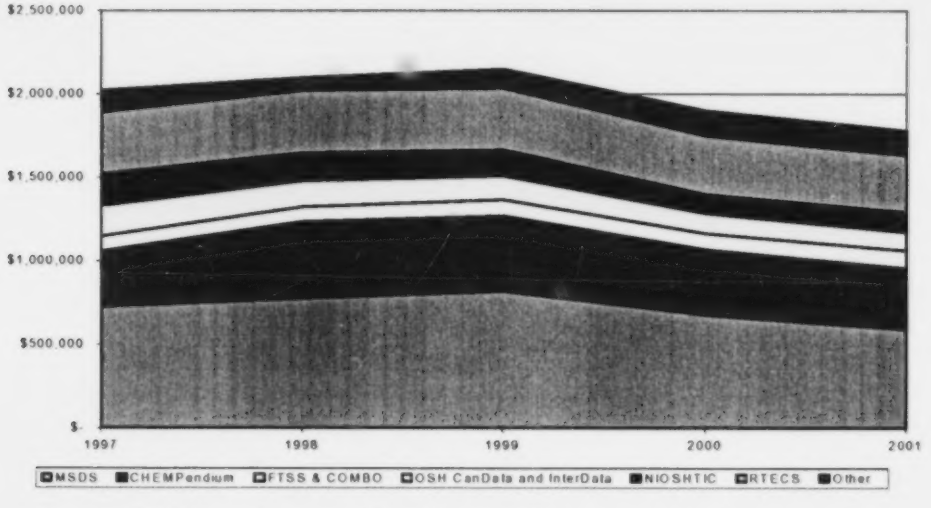
- FTSS and FTSS/MSDS Combo sales grew by an average annual rate of 3.9% over the same five year period, although this growth was characterized by alternating gains and falls.

- A similar pattern of gains and falls was experienced by CHEMPendium. Sales in 2000-01 were 10% higher than in 1996-97 but 20% down on sales in 1997-98.

- CCOHS staff believe that the declines in sales of the core CCINFO-based products are a function of the greater availability and accessibility of information on the Internet and from other providers, and gains in the ease of access and use of alternative products.

- Within the Other sub-category, CCOHS has achieved good results with its Academic Support Program, a tailored package of CCINFO databases marketed to universities and colleges. Sales have grown at an average annual rate of 15.4% since 1996-97 to reach almost $106,000 in 2000-01.

Exhibit III-5 Trends in Sales of Core CCOHS Products



Source: CCOHS internally prepared financial statements

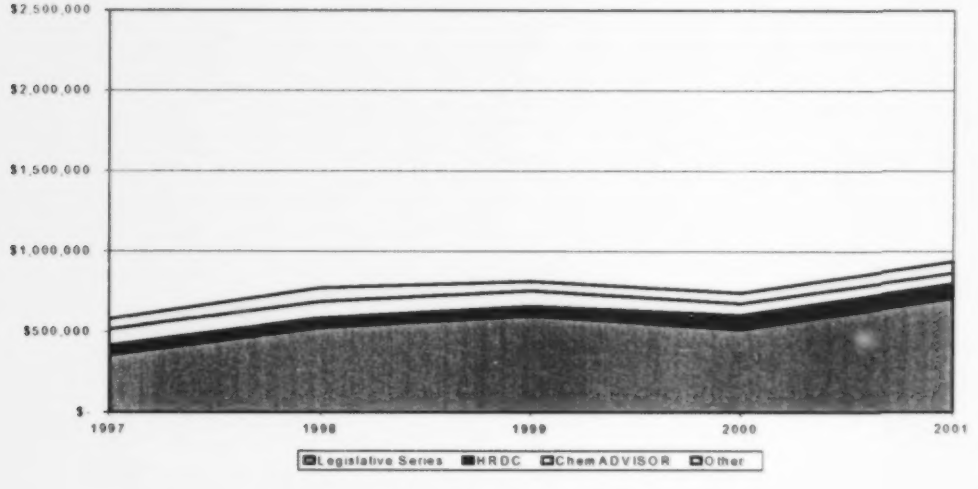
Unlike the Core products, sales of Specialty products have enjoyed strong growth over the last five years, as shown in Exhibit III-6. This growth has come from:

- The Legislative Series (*enviro*OSH Legislation), which grew by an average of 15.4% per year over the last five years to reach $708,000 in 2000-01.
- The HRDC product (federal health, safety and employment standards information), which grew by an average of 11.6% to reach almost $92,000 in 2000-01.

The combination of these trends in sales of Core and Specialty products has resulted in the following overall change in sales mix at CCOHS:

	1996-97	1997-98	1998-99	1999-00	2000-01
Core Products	53%	56%	57%	52%	46%
Specialty Products	15%	21%	22%	20%	24%
Other Sales (Consulting projects, publications)	32%	23%	21%	28%	30%
Total	100%	100%	100%	100%	100%

Exhibit III-6 Trends in Sales of Specialty CCOHS Products – Last Five Years



Source: CCOHS internally prepared financial statements

D. CUSTOMER CHARACTERISTICS

CCOHS serves a wide range of users, potentially meeting needs for OHS information across all sectors in Canada and a significant number of international organizations

(approximately one-third of the Centre's account customers). Current CCOHS information systems provide only a limited amount of information on the characteristics of its clientele, making it difficult to judge if the Centre has been able to achieve a significant market share or presence.

Client information is compiled for those users that have accounts with the Centre—primarily buyers of subscription products and clients/partners in consulting projects—and used to support both client service and marketing functions. We reviewed the characteristics of the 3,052 account customers on the CCOHS system in 2000 to determine the average sales per customer and which customer segments contributed the most to sales, drawing on an analysis of customer and industry segment performance conducted by CCOHS. The findings from this analysis are shown in Exhibit III-7.

Exhibit III-7 Sales Patterns for Account Customers

	Segment	# of Customers	%	1999-00 Segment Sales ($,000)	%	Average Sales per Customer
110	Chemicals and Pharmaceuticals, Paints	337	11%	$306.7	15%	$910
120	Oil, Gas, Mining, Food, Textile, Wood, Paper	235	8%	221.8	11%	$944
130	Metals, Machinery and Other Industries	446	15%	289.3	14%	$649
210	Transportation and Public Utilities	141	5%	139.5	7%	$989
220	Wholesale and Retail Business, Financial, Other	178	6%	75.9	4%	$426
230	Consultants and Legal Services	247	8%	97.0	5%	$393
240	Associations and Membership Organizations	87	3%	66.9	3%	$769
310	Universities and Colleges	253	8%	189.5	9%	$749
320	Other Schools and School Boards	63	2%	35.3	2%	$560
330	Public Libraries, Museums and Archives	12	0.4%	5.9	0.3%	$492
410	Hospitals	98	3%	41.9	2%	$427
420	Health Clinics, Medical Agencies, Public Health	32	1%	10.9	0.5%	$339
430	Other Health Services	266	9%	140.3	7%	$527
510	Federal Departments and Agencies	148	5%	191.8	9%	$1,296
520	Provincial and Territorial Depts & Corporations	116	4%	87.2	4%	$752
530	Municipal and Regional Departments	134	4%	62.2	3%	$464
540	Fire & Emergency Services	85	3%	71.9	4%	$846
600	(Other)	167	6%	18.9	1%	$113
TOTAL		**3,045**	**100%**	**$2,052.7**	**100%**	**$674**

Key points to note from this analysis of account customers are as follows:

- Biggest customer segments—in terms of customer numbers were:
  - Metals, Machinery and Other Industries (CCOHS Industry Code 130)
  - Chemicals and Pharmaceuticals, Paints (110)
  - Other Health Services (430)
  - Universities and Colleges (310)
  - Consultants and Legal Services (230)
- The top five customer segments, in terms of total sales per segment, were:
  - Chemicals and Pharmaceuticals, Paints (Ind. Code: 110)
  - Metals, Machinery and Other Industries (130)
  - Oil, Gas, Mining, Food, Textile, Wood, Paper (120)
  - Federal Departments and Agencies (510)
  - Universities and Colleges (310)
- Average annual sales per customer, across all customers, was $674.
- Top five customer segments, ranked by average sales per customer:
  - Federal Departments and Agencies (Ind. Code: 510)
  - Transportation and Public Utilities (210)
  - Oil, Gas, Mining, Food, Textile, Wood, Paper (120)
  - Chemicals and Pharmaceuticals, Paints (110)
  - Fire and Emergency Services (540)

This analysis suggests that the Centre has been most successful in penetrating the manufacturing, oil and gas, and mining sectors, federal government departments and agencies, and the tertiary education sector.

The findings also raise the question of how strong is the Centre's performance compared to the potential market. In order to obtain an indicative answer to this question we compared the number of CCOHS customers per industry segment to Statistics Canada data on the numbers of establishments with 100 or more employees, broken down by NAICS (North American Industry Classification System) Codes.[3]

The measure of penetration (that is, number of CCOHS customers as a percentage of the total potential customer base) shown in Exhibit III-8 is not perfect and should be viewed as providing an order of magnitude indicator of the Centre's market penetration performance. While it is likely that larger organizations will be the most likely to purchase CCOHS

[3] Statistics Canada data used in this comparison was taken from: **Canadian Business Patterns**, December 2000 Extraction, Catalogue Number 10C0021.

materials on a regular basis there will still be smaller organizations in need of (and willing to purchase) such information, and the count of CCOHS customers included international buyers while our base is entirely of organizations in Canada.

Exhibit III-8 Indicative Measures of Market Penetration Rates

	Segment	# of CCOHS Customers	# of Establishments With 100+ Employees	CCOHS Penetration Indicator*
110	Chemicals and Pharmaceuticals, Paints	337	629	54%
120	Oil, Gas, Mining, Food, Textile, Wood, Paper	235	2,447	10%
130	Metals, Machinery and Other Industries	446	2,332	19%
210	Transportation and Public Utilities	141	951	15%
220	Wholesale and Retail Business, Financial, Other	178	9,329	2%
230	Consultants and Legal Services	247	1,276	19%
240	Associations and Membership Organizations	87	310	28%
310	Universities and Colleges	253	248	102%
320	Other Schools and School Boards	63	667	9%
330	Public Libraries, Museums and Archives	12	80	15%
410	Hospitals	98	620	16%
420	Health Clinics, Medical Agencies, Public Health	32	488	7%
430	Other Health Services	266	1,281	21%
510	Federal Departments and Agencies	148	211	70%
520	Provincial and Territorial Departments & Corporations	116	330	35%
530	Municipal and Regional Departments	134	466	29%
540	Fire & Emergency Services	85	56	152%
600	(Other)	167		
TOTAL		**3,045**	**21,721**	**13%**

(* Number of CCOHS customers as a % of Canadian establishments with 100+ employees. International customers-which account for about one-third of all account customers—have not been excluded from the customer count, which means that the estimate of penetration is overstated. In some instances—e.g., Industry Segments 310 and 540—CCOHS has attracted a significant number of international and/or smaller Canadian firms, resulting in penetration estimates in excess of 100%.)

The findings from this analysis suggest:

- CCOHS has had most success in penetrating the following industry segments:
  - Fire and Emergency Services (CCOHS Ind. Code: 540)
  - Universities and Colleges (310)
  - Federal Departments and Agencies (510)
  - Chemicals and Pharmaceuticals, Paints (110)
  - Provincial and Territorial Departments and Corporations (520).

(The greater than 100% penetration estimates for universities/colleges and Fire/Emergency Services represent, we believe, segments where smaller establishments are also active users of OHS information and/or CCOHS has been able to build a relatively strong international clientele.)

- However, these segments account for a relatively low proportion—7%—of the total number of large business establishments in Canada.

- The Centre's penetration is lowest in:

  - Industry segments with a large number of diverse organizations (i.e., spanning a large and varied number of sub-segments), such as Wholesale and Retail Business, Financial and Other (CCOHS code 220); Oil, Gas, Mining, Food, Textile, Wood, Paper (Code 120); and Transportation and Public Utilities (210). These three segments have a total of 12,700 large establishments and account for 59% of all large establishments in Canada.

  - Smaller, more narrowly defined segments that may have not had the same priority for CCOHS, have more specialized OHS information needs or where OHS information may not have the same level of importance. Segments in this performance category include: Health Clinics, Medical Agencies, Public Health (CCOHS Code 420); Schools and School Boards (Code 320); and Public Libraries, Museums and Archives (Code 330).

E. COST STRUCTURES AND TRENDS

On the expenditure side, CCOHS made significant adjustments in its staffing levels and associated costs during the early-1990's and has had to maintain tight control of expenditures since. The main trends in expenditures, as shown in Exhibit III-9, have been:

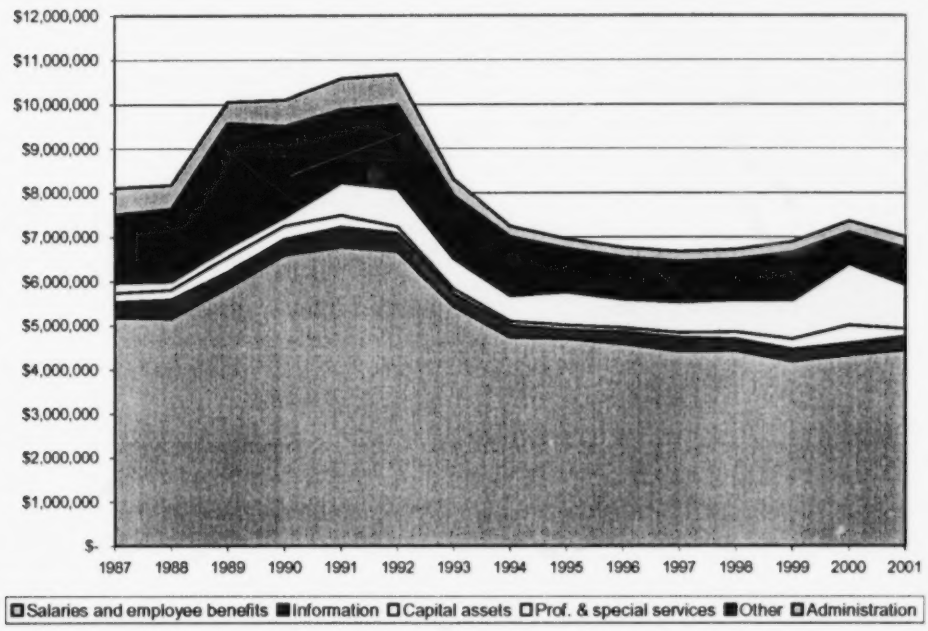
- Total expenditures peaked at $10.7 million in 1991-92 and then dropped in each of the following five years—to $6.7 million—and have since remained in the range of $6.7 – 7.4 million.

- Reductions in staffing provided the main means of adjusting to the reduction in funding levels. Approximately 50% of the workforce were laid off and CCOHS incurred significant payouts for termination benefits in 1992-93 and 1993-94, and again in 1998-99.

- Historical reductions in staffing levels and recent increases in project activity have lead to significant increases in expenditures on professional services. Ten years ago (1991-92) professional and special services accounted for 8.4% of total expenditures; in 2000-01 their share was 14.2%.

- Administration expenses have gone from around $700,000 down to $265,000—from 6% of total expenditures to 4%.

Exhibit III-9 Trends in CCOHS Expenditures



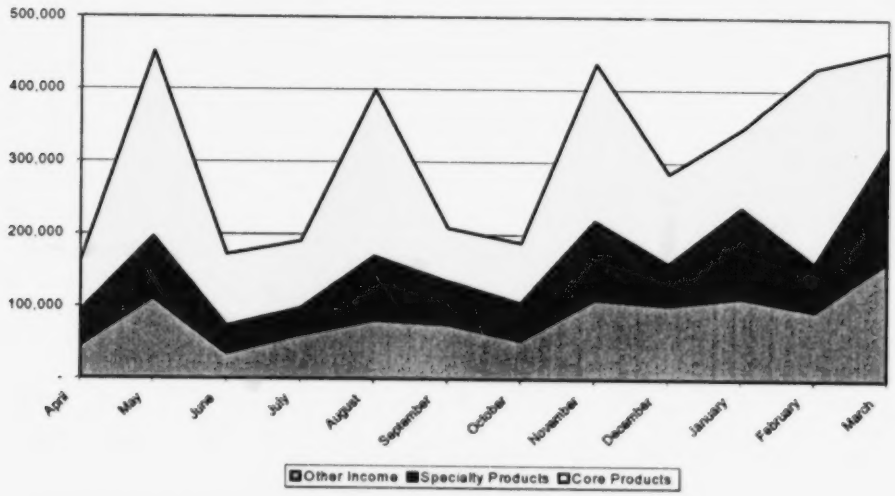
Source: CCOHS audited financial statements

F. LIMITATIONS ON CCOHS AS A SCHEDULE II ORGANIZATION UNDER FAA

As a Schedule II organization under the *Finance Administration Act*, CCOHS encounters a number of administrative limitations which impair its ability to realize the full benefits of its revenue generating activities compared to private sector organizations and crown corporations. These limitations include:

- An inability to finance its activities through working capital, and the effects of rollover provisions given the revenue cycle of CCOHS.
- CCOHS typically receives 28-33% of its proceeds from both the sale of products and other income in the final quarter of the fiscal year, as shown in Exhibit III-10. This results in a situation where CCOHS may lose revenues due to the limited rollover provisions it is allowed to operate under.

Exhibit III-10 Seasonal Revenue Cycle



Source: CCOHS internally prepared financial statements

- These same rollover provisions also affect the Centre's ability to accumulate funds for product development in the event that revenues exceed operating needs.

- The amount of sales occurring in the final quarter of the fiscal year also impacts business planning and working capital. Although sales have occurred, cash collection does not occur until the following year, and expenditures cannot be made until final sales figures are known, resulting in the deferral of spending (i.e. to avoid losing the funds to the roll-over provision).

- CCOHS also incurs additional costs or time delays compared to private companies and Crown Corporations due to the requirements of other federal legislation or government-wide polices and processes. For example, the Centre experienced significant delays in establishing business arrangements to charge sales to customers' AMEX accounts, and has to operate to a higher standard than might otherwise be the case in delivering services in both French and English.

G. ISSUES AND CHALLENGES FACED

The last ten years have been difficult for the CCOHS. The Centre has had to significantly reduce its resources as the total level of funding has fallen, operate with a very lean management and administrative overhead, increase the amount of funding generated

from the sale of products and services, and adapt to a rapidly changing environment for the electronic management and distribution of information.

Going forward, the organization faces a number of significant challenges:

- Public appropriations have declined to the point where they provide of the order of 38-40% of the Centre's total funding. Additionally, a significant proportion of this funding is "at risk", that is, is not part of the main voted appropriation for the Centre but comes from supplementary appropriations where continuity and stability of funding cannot be taken for granted. Projected future levels of public funding from the Main Estimates make no provision for this supplementary funding requirement (of the order of $0.6 million per year) and assume revenues from cost recovery will rise to $5.84 million per year.

- Dependence on revenues from cost recovery has risen from about 20% of funding ten years ago to about 60% now. Recent performance trends suggest that revenue levels have hit a plateau and may in fact fall unless CCOHS can update its existing products and develop new products to maintain the value it provides for users.

- The combination of the above two trends means that CCOHS faces a combination of static or declining revenues from cost recovery, and unstable public funding. Without a more reliable level of funding, matched to the real level of resources required to sustain operations, CCOHS will continue to operate and manage with a short term, survival focus.

- CCOHS has achieved a relatively good penetration rate for its priced products but could potentially increase both the number of customers and number of products sold per customer (i.e., revenue per customer). However, more intensive marketing efforts targeting potential paying customers will require additional expenditure on marketing, sales and customer support function, as well as a continuing flow of improved and new products and supporting systems—areas in which upfront expenditures will need to be incurred before any additional revenue can be realized.

- The Centre's ability to achieve the full benefits from its external revenue generating activities is somewhat limited by the administrative requirements imposed by the FAA, particularly limitations related to the use of working capital and the ability to rollover revenues from one year to the next. In turn, these limitations affect the Centre's ability to accumulate funds for such activities as research and new product development.

- Provincial level organizations have increased the availability of free OHS information on their internet sites.

- The CCOHS receives payment for subscriptions up front in one fiscal year. The delivery of the product then becomes a liability for the next year since it is

a subscription product. This presents a challenge to the Centre in that continuous upgrades and improvements are required to the subscription products in order to maintain sales and encourage customers to renew subscriptions.

IV PROGRAM EVALUATION FINDINGS

A. RATIONALE AND RELEVANCE

1. The role of CCOHS

The evaluation of the rationale for the programs and activities of CCOHS is based on a review of the initial mandate as it relates to current activities. CCOHS is intended to promote the fundamental right of Canadians to a healthy and safe working environment. As a national institute, CCOHS undertakes a wide range of activities to achieve its objectives. These activities include the following:

- The provision of technical documents, data and related safety information to the health and safety community. An important element of this activity is to improve the coordination of the flow of workplace health and safety information.
- The promotion and evaluation of research on health and safety issues.
- The provision of expert advice and training in occupational health and safety.
- Participation in meetings and conferences throughout Canada.
- Other activities consistent with the mandate of promoting health and safety in the workplace and the physical and mental health of Canadian workers.

These activities generate a flow of information. By its nature, the impacts of information may be widespread and difficult to attribute to the source activities of CCOHS. The provision of information is obviously a valuable activity. However, tracing out all of the ultimate impacts and effects of information provision is a difficult task for all kinds of information, not just for health and safety information.

The ultimate objective of CCOHS is to improve workplace health and safety. The links described above involve CCOHS being recognized as a national clearinghouse for health and safety information and as the recognized leader in the provision of useful occupational health and safety (OHS) information to the OHS community. This community includes workers, their unions, employers, governments and related OHS professionals.

This evaluation assesses the extent to which CCOHS has achieved this recognition with leading members of the OHS community. It is not possible to establish the number of injuries, illnesses and deaths prevented as a result of the activities of CCOHS directly. Many factors influence these variables and determining the independent impact of CCOHS is not possible. The extent of improvements in workplace conditions, attributed by users to the

information disseminated by CCOHS is used as a measure of the health and safety impact of CCOHS. Our analysis, based on interviews and surveys, found that the intended effects on workplace conditions do occur.

2. Potential benefits of CCOHS activities

The activities and products of CCOHS consist of information that is related to the promotion of occupational health and safety. The benefits that potentially flow from this consist of improved workplace conditions that ultimately lead to fewer illnesses, fewer injuries and fewer deaths. Reduced time loss and increased productivity are tied to these benefits. Linking improved workplace safety to any particular CCOHS product or activity does not seem feasible. However, to the extent that CCOHS information is used to promote workplace change, the ultimate social benefits and increases to productivity can be very high.

The information generated by CCOHS is distributed in a series of products that users purchase and through services made available to the public at no cost. How "valuable" are these products and services? From an economic perspective, the products that are paid for must have a value to purchasers of at least the purchase price otherwise they would not purchase the product. However, the value to society of the paid products is measured as the value of the improvement in occupational health and safety that can be attributed to them. This value to society can exceed by a large margin the private value (the amount paid for the CCOHS product) because the information, once purchased, can be used to produce safety benefits for many workers.

The value to society of the activities and products that are provided with no fee is also measured as the value of the improvement in occupational health and safety that can be attributed to them. Even though users pay no explicit price, the value to society can still be very high.

There is an extensive economics literature on the benefits of policies to make workplaces safer. These benefits come from reduced risks of injuries, illness or death. It is important to note, however, that the benefits of the activities of CCOHS to reduce risks have many points of comparison in other government functions. That is, there are many analogies to the question of how to determine the benefits to Canadians of reduced health and safety risks in the workplace.

There are risks associated with all aspects of daily life. Many government programs and regulations affect the risk to Canadians. Programs to train air traffic controllers, to improve public health and to reduce environmental problems such as ozone depletion all fall into this category. Governments at all levels decide how to allocate scarce resources to competing programs and priorities, many of which involve risk of injury or death. The benefits of risk reduction are, in other words, always being assessed even if only implicitly.

Motor vehicle transportation provides a related example of the application of this approach. Passing lanes, road divider barriers, better curve banking and many other road safety investments have the potential to reduce accidents and fatalities. However, the list of

such risk-reducing investments is long and there are many areas outside traffic safety that also have claims on society's limited risk reduction resources.

Effective safety decisions require information on how to invest wisely, given competing alternatives. A crucial variable in the highway planning process is the willingness to pay for risk reduction. Similarly, in the case of occupational health and safety, if we are considering safety in a broader context, the core variable of interest is the willingness to pay to reduce workplace risks. The higher is this willingness to pay, relative to the cost of producing safety and health, the more society should choose to invest in safety.

The most recent research results on workplace risks and the value of measures to reduce these risks indicates that the benefits of reducing these risks are much higher than had previously been estimated. Gunderson and Hyatt (2001) provide new Canadian evidence on the benefits of reducing workplace risks. Their evidence indicates that the benefits of reducing workplace risks are more than four times higher than earlier estimates. Leigh (2001) has provided related results for the United States. More specifically, the Gunderson and Hyatt estimates suggest that the benefits to society of reducing the risks that would lead to one fatality are as high as $13 million while the benefits of reducing the risks that would lead to one non-fatal injury are approximately $20,000.[4]

The policy implications of this literature are clear. Current funding decisions for organizations like CCOHS that reduce workplace risks were made when the estimated benefits of risk reduction were lower than current estimates. The new evidence on higher payoffs to risk reduction implies that society should now be devoting more resources to reducing workplace risks.

3. Injuries, fatalities and program rationale

The original rationale for CCOHS was to serve as a national centre that would contribute to reductions in occupational injuries and illnesses. This core rationale remains valid. Many sources of data could be used to support this assertion. The most frequently cited data in the literature on occupational health and safety are data dealing with occupational injuries and deaths.

The standard data sources relate occupational injuries and fatalities to the number of workers employed (the population at risk for occupational hazards). For Canada in 1998, the employed population consisted of 13.8 million persons. Of this total, approximately 375,000 suffered an injury requiring time loss from work. Occupational fatalities totaled 798.

Exhibit IV-1 shows comparative data on occupational injuries and fatalities for 1998 (the latest year for which HRDC has published data) and 1970. There have been significant

[4] Gunderson, Morley and Douglas Hyatt (2001) "Workplace Risks and Wages: Canadian Evidence from Alternative Models" *Canadian Journal of Economics*, v. 34, no. 2, May.

Leigh, J. Paul, James Cone and Robert Harrison (2001) "Costs of Occupational Injuries and Illnesses in California" *Preventive Medicine*, v. 32, no. 5, May.

reductions in injuries and fatalities relative to numbers of workers but the numbers remain high. The reductions likely result from a variety of factors including changing technologies, better educated workers and industry initiatives together with occupational health and safety policies and programs, including the activities of CCOHS.

Exhibit IV-1 Occupational Injuries and Fatalities in Canada

Year	Employees (millions)	Time-Loss Injuries	Fatalities	Injuries per million workers	Fatalities per million workers
1970	7.03	301,653	918	42,909	131
1998	14.33	375,360	798	26,201	56

Source: Human Resources Development Canada, *Occupational Injuries and their Cost in Canada, 1993-1997*, 1999, and *Statistical Analysis: Occupational Injuries and Fatalities, Canada, 1994-1998*, 2000.

Small and achievable reductions in risk can generate large benefits to society. An overall perspective on program rationale as it relates to injuries and fatalities can be provided by combining the data in Exhibit IV-1 with the data on the value of reducing the risks of deaths and injuries cited earlier. Note that these values were $13 million per fatality and $20,000 per non-fatal injury. Combining these data with actual fatality and injury data for 1998 from Exhibit IV-1 produces a dollar value of almost $18 billion from reducing the risks of all of these accidents to zero. Put differently, the cost to Canadian society of the risks leading to injuries and fatalities in 1998 was approximately $18 billion.

This analysis related directly to the CCOHS rationale. If CCOHS activities led to a 1% reduction in these risks, 3,750 injuries and eight fatalities would be avoided. The research outlined above indicates that Canadian society would assign a value of $179 million to this reduction.

4. Economic aspects of program rationale

The economic rationale for government support of programs and activities has two sources. These are:

- A fairness or equity rationale in which particular groups in society are supported through program activities.
- An economic efficiency rationale in which the program is justified because market processes do not provide the best outcome from the point of view of society. This is generally referred to as the "market failure" rationale.

Support for CCOHS is consistent with both of these sources of rationale for the program.

The development of a formal rationale for a program such as CCOHS is the first step in the evaluation process. In the economic efficiency case, the evaluation seeks to identify market failures and then relate program activities to the market failure. That is, for the rationale to fit well, the program must undertake activities targeted to rectifying the original market failure. The evaluation has the task of determining whether program activities as they actually take place are plausibly linked to the underlying market failure that provides the rationale for the program. In the case of CCOHS, this chapter focuses on the failure of markets to provide adequate amounts of information related to occupational health and safety as the primary source of program rationale. This type of market failure is discussed in the context of the extensive literature in applied economics on the problems of information as a commodity.

In a market context, there are many ways by which users of information are able to avoid paying either entirely or an amount equal to the full value they receive from its use. The excess of the amount that a user of information would have been willing to pay relative to what is actually paid is called a spillover benefit. For example, worker A may pay to acquire safety information. Worker B then observes what worker A does to work more safely and follow A's example. In this case, the benefits to B of using the information paid for by A constitute a spillover benefit.

Related to this example, it is clear that the safety information (used by A and B) is costly to produce and disseminate. In the above example, only one of the beneficiaries of this information contribute to its cost of production. In this context, there will be many types of information that have a value to society exceeding their costs of production that will not be produced if firms have to recover all of their costs in doing so. This is the essence of the market failure issue for information as it applies to CCOHS.

There is a related source of program rationale that focuses on the role of information related to occupational health and safety regulatory requirements. Workplaces are complex and differ from each other in a variety of ways. Governments enforce health and safety regulations but inspection is costly and even well-trained inspectors will not be as sensitive to specific workplace issues as are workers in that workplace. Providing more information to workers is an alternative and cost effective enforcement mechanism for governments in the area of regulating occupational health and safety.

Thus, the activities of CCOHS relate directly to its mandate and to the economic and related sources of rationale for the program. CCOHS promotes occupational health and safety. It acts as a national centre for the production and dissemination of safety information used by a large number of Canadian workers. The causal linkages from activities to outputs to program impacts and finally to overall objectives are clear and have been confirmed by the results of this evaluation.

B. PROGRAM DELIVERY

1. Program resources

The resources available to CCOHS are described in chapter III of this report. These resources support the range of activities and products described below. Many of the resources of CCOHS support both the products that are sold and the services provided to Canadians without a fee. These services draw on the information base and expertise of CCOHS, some of which is generated in producing the products that are sold. There are, in other words, common costs associated with the paid products and the free services. Calculations elsewhere in this report show that some of the costs of providing the free services are shared with the paid products. That is, in the absence of the paid products, it would cost more to provide the free services than is now the case. Based on interviews conducted with key informants, there is widespread support for the continued provision of free services; particularly non-technical information provided to individual workers.

2. Activities and products

The activities and products of CCOHS can be summarized in the following categories:

- The Inquiries Service.
- The web site and particularly OSH Answers.
- The information products sold by CCOHS.
- Other activities including the development of data, training, research, and special projects.

a) Inquiries Service

The Inquiries Service answers questions in two ways – through its Internet service (OSH Answers), and through its person-to-person information service. ARC Applied Research Consultants conducted a telephone survey of 300 current users of the Inquiries Service (those who had used the service in the previous twelve months).[5] Of the 300 respondents, 52% had used the Inquiries Service more than once in the previous twelve months. We asked respondents how many individuals within their organization access the information provided by CCOHS. These answers showed substantial use: approximately 9% of respondents indicated that more than 100 individuals in their organization access CCOHS information.

[5] The questionnaire and detailed tabulations of the Inquiries survey results are shown in Appendix A to this report.

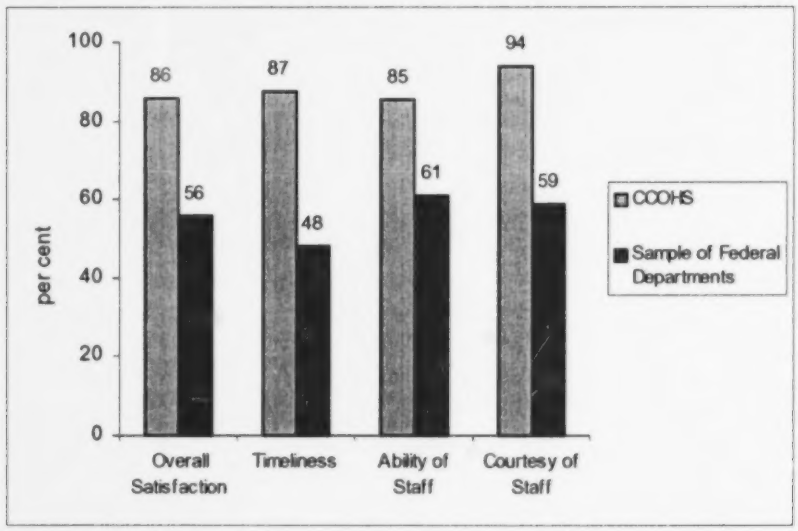
The information obtained from the Inquiries Service operated by CCOHS by respondents is put to a number of uses, the most common of which are:

- Improving health and safety programs.
- Developing best practices.
- Complying with occupational health and safety regulations.
- Information for education or training purposes.
- Personal use or information.

Approximately 75% of respondents' use of CCOHS information relates to either current or future changes to the workplace that may result in improved workplace health and safety.

Key performance indicators such as timeliness, ability of staff and courtesy of staff, along with the overall satisfaction with the service to provide a series of measures against which to measure the quality of the service. Respondents rated the CCOHS Inquiries Service very highly for all indicators. Ratings for CCOHS and a comparison sample of federal departments providing an information service are summarized in Exhibit IV-2.

Exhibit IV-2 Level of Satisfaction with CCOHS Inquiries Service



Source: Data for CCOHS is from a telephone survey conducted by ARC.

The results in Exhibit IV-2 show very high levels of user satisfaction. In order to provide a better assessment of the level of satisfaction of CCOHS clients, a benchmark was needed. The Treasury Board and the Canadian Centre for Management Development have

developed a Common Measurement Tool (CMT) that is intended for use by federal departments and agencies in assessing their level of client satisfaction and for comparing their results to those of other departments and agencies providing similar services. At the time of writing this report, no such results were publicly available and so other benchmarks were sought.

Benchmarks of client satisfaction used for comparing the level of satisfaction with CCOHS products and services for this report appear in *Citizens First 2000* (Erin Research).

Erin Research asked survey participants to rate services they had used in the past year using a five point scale where 1 is "very poor," 5 is "very good," and 3 is "neutral." A total of 17 federal departments and agencies were rated in this way with a mean score of 61. According to *Citizens First 2000* service providers should assess their performance against other providers of similar services rather than against overall aggregates. In order to do this ARC used Health Canada Information Services and Information Services (in general) as the basis for comparison; the mean score for these two services was 56. We believe these provide a similar product/service to CCOHS – namely information. This benchmark information is only available for assessing the overall level of satisfaction.

Other key performance indicators assessed in the CMT include timeliness, knowledgeable/competent staff, and courtesy of service. Citizens First summarizes the results of ratings made by 6,040 respondents and aggregates ratings of federal, provincial and municipal services. Comparisons made with CCOHS should be viewed with some caution since different types of services are being compared. Nevertheless, in the absence of other benchmarks they serve to illustrate the comparative level of satisfaction with CCOHS products and services with regard to timeliness, ability of staff and courtesy of staff.

b) Web site

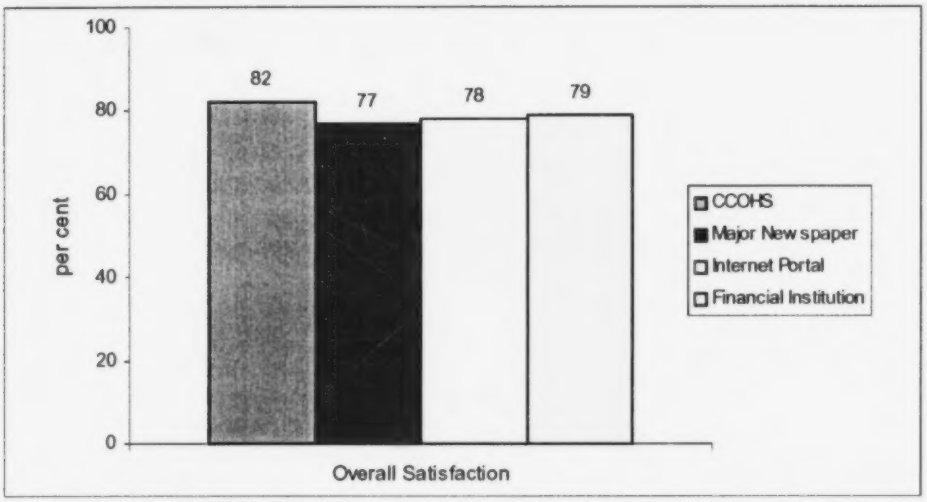
The CCOHS web site is extremely active. Data collected by CCOHS indicate approximately 59,000 requests for information to OSH Answers between April 1, 2001 and June 30, 2001. Traffic measures by themselves do not reveal the potential impacts of web site use. Our survey of the users of the CCOHS web site, however, provides additional perspective on the potential impact.[6] In the last year, survey respondents averaged 12 visits to the CCOHS web site. The average number of individuals within each organization surveyed who use the information provided by CCOHS is between 11 and 100.

Seventy two per cent of respondents indicated that the use of information from CCOHS related to either current or future changes to the workplace that may improve occupational health and safety. This suggests that the information available on the Centre's web site is being used to improve workplace health and safety and thus decrease the number of work-related injuries and deaths.

[6] The questions asked and detailed tabulations of the web user survey results are shown in Appendix B to this report.

The overall level of satisfaction with the CCOHS web site among respondents to the web survey was 82% with 70% rating the web site as either "very good" or "good" using a five-point scale. This compares favourably with other web site reviews that we compiled for comparison purposes. Exhibit IV-3 provides a comparison to satisfaction ratings of other web sites operated by national level businesses.

Exhibit IV-3 Comparison of Satisfaction Rating of CCOHS Web Site with Other Organizations



Source: Data for CCOHS are derived from a web survey conducted by ARC.

c) Products

CCOHS markets a wide range of products in a variety of formats. The core products continue to be those distributed in CD-ROM format. CCOHS has approximately 3,000 current customers for these products. The major products of CCOHS are described as follows:

- **Material Safety Data Sheets (MSDS)** provide information on over 120,000 workplace hazardous materials. The MSDS database is used for a variety of purposes including compliance with Canada's Workplace Hazardous Materials Information System (WHMIS).

- **CHEMINFO** is a comprehensive source of occupational health and safety information on chemicals. It is produced by CCOHS occupational health and safety specialists. Chemical profiles use non-technical language to describe potential workplace hazards and control measures. It also provides users with access to international hazard classifications, including WHMIS, OSHA and the European Union.

- **CHEMPendium** is a set of resources providing chemical hazard information for workplaces covering transport of hazardous materials; descriptions of chemical toxicity; fact sheets on the hazards and safe use of industrial chemicals and environmental contaminants, including pesticide label text and other safety information.

- **Registry of Toxic Effects of Chemical Substances (RTECS)** from the US National Institute for Occupational Safety and Health (NIOSH) provides toxicological information with citations on over 140,000 chemical substances.

- **OSHLINE with NIOSHTIC** is a combined bibliographic database providing comprehensive international coverage of documents on occupational health and safety. It contains detailed summaries of over 200,000 articles, reports and publications, spanning over 100 years. OSHLINE, compiled by CCOHS, continues and expands the coverage of NIOSHTIC. Comprehensive coverage of journals and reports ensures that the most up-to-date sources are included.

- **Health and safety guides** are sold by CCOHS covering a range of areas such as Food Service Workers and Indoor Air Quality.

- **The Canadian enviroOSH Legislation** collections provide complete texts of all Canadian health, safety and environmental legislation, as well as guidelines and codes of practice. These collections also include Canadian Safety Association (CSA) standards and provincial/territorial Workers' Compensation Board legislation.

- **IPCS INCHEM** Information on Chemical Safety from the International Programme on Chemical Safety (IPCS) consolidates a wide variety of information produced by a number of international bodies whose goal is to assist in the sound management of chemicals.

- **OSH CanData** is a collection of OHS databases and publications. It's focus is on unique and hard-to-find information such as noise level measurements and coroners' inquest reports on work-related fatalities.

- **IPCS Intox** is intended to provide vital information for Poison Centres around the world.

As part of this study ARC conducted a fax survey of current CCOHS customers who purchase the above products.[7] Overall, 73% of the 250 organizations responding to our survey have been purchasing CCOHS products for over three years. Ninety one per cent of purchasers of OSHLINE with NIOSHTIC have been purchasing these products for over three years. Exhibit IV-4 summarizes these results.

[7] The questionnaire and detailed tabulations of the Purchaser survey results are shown in Appendix C to this report.

Exhibit IV-4 Length of time purchasing CCOHS products

Product	Percentage purchasing for over 3 years
MSDS+ChemInfo	74
CHEMPendium	67
RTECS	72
OSHLINE with NIOSHTIC	91
OSH CanData	76
Health and Safety Guides	n/a
enviroOSH Legislation	69
IPCS INCHEM	60
IPCS INTOX	75
All products	73

Source: Survey of CCOHS customers

Purchasers responding to ARC's survey were asked to estimate the frequency with which they use the products. Overall, 35 % of respondents use the product at least once per week. The most frequently used product by purchasers is IPCS INTOX with 20% of purchasers reporting using that product daily. Further details of the frequency of use of products used are provided in Exhibit IV-5. We note that none of our respondents indicated using CCOHS Health and Safety Guides on a weekly basis. We believe this is due to the nature of the product in that the guides serve a reference purpose. Fifty three per cent of purchasers of CCOHS Health and Safety Guides report using them at least once per month.

Data on the number of years purchasers have been buying individual CCOHS products and the frequency with which the products purchased are used are a reflection of the relevance and usefulness of products and likely lack of substitutes.

Exhibit IV-5 How Frequently Information is Used

Product	Daily (%)	More than once a week (%)	Once per week (%)	Total (at least once per week) (%)
MSDS+ChemInfo	2	14	11	27
CHEMPendium	9	25	19	53
RTECS	7	21	14	42
OSHLINE with NIOSHTIC	0	25	10	35
OSH CanData	0	23	23	46
Health and Safety Guides	0	0	0	0
enviroOSH Legislation	7	25	7	39
IPCS INCHEM	0	10	30	40
IPCS INTOX	20	0	0	20
All products	4	18	13	35

Source: Survey of CCOHS customers

The nature of the information produced by CCOHS is such that the value to a firm, and to society as a whole, increases as more people access that information. We asked purchasers of CCOHS products to estimate the number of people in their organization who regularly use CCOHS information. The survey results for this question are summarized in Exhibit IV-6. Overall, most respondents indicated that the information is used by one to ten individuals in their organization, 4% of respondents indicated more than 1,000 people.

Exhibit IV-6 Number of Persons in Organization Using CCOHS Information

Product	1 to 10 (%)	11 to 100 (%)	101 to 1000 (%)	more than 1000 (%)
MSDS+ChemInfo	56	26	15	3
CHEMPendium	69	22	6	3
RTECS	83	7	7	3
OSHLINE, NIOSHTIC	58	16	11	16
OSH CanData	64	29	7	0
Health and Safety Guides	87	13	0	0
enviroOSH Legislation	69	28	3	0
IPCS INCHEM	90	10	0	0
IPCS INTOX	80	0	0	20
All products	67	21	9	4

Source: Survey of CCOHS customers

The rationale for CCOHS indicates that the extent of the use of CCOHS products and services for the purpose of promoting changes, both current and future, in the workplace should be reflected in improved occupational health and safety and thus fewer accidents and injuries. Overall, 56% of purchasers responding to the survey indicated that CCOHS products were being used to promote changes leading to improvements in workplace health and safety. Purchasers of CCOHS Health and Safety Guides were by far the most likely, 92%, to state that the guides are being used to improve health and safety. These data are summarized in Exhibit IV-7.

Exhibit IV-7 Use of Products to Promote Changes in the Workplace

Product	Products used to promote OSH changes (%)
MSDS+ChemInfo	55
CHEMPendium	44
RTECS	48
OSHLINE, NIOSHTIC	56
OSH CanData	75
Health and Safety Guides	92
enviroOSH Legislation	68
IPCS INCHEM	40
IPCS INTOX	40
All products	56

Source: Survey of CCOHS customers

Consistent with results of other surveys conducted as part of this evaluation, respondents indicated a very high level of satisfaction with CCOHS products. Key results are summarized in Exhibit IV-8 below and more detailed results may be found in Appendix C. These results, along with the number of years purchasers have been buying CCOHS products indicate a high level of overall satisfaction with these products.

Exhibit IV-8 Level of Satisfaction with Product – Satisfied (very or somewhat)

Product	Usefulness (% very or fairly satisfied)	Clarity (% very or fairly satisfied)	Scientific Validity (% very or fairly satisfied)	Reliability of Information (% very or fairly satisfied)
MSDS+ChemInfo	86	94	88	90
CHEMPendium	75	85	83	90
RTECS	79	72	85	85
OSHLINE, NIOSHTIC	94	90	89	94
OSH CanData	77	77	80	85
Health and Safety Guides	87	93	75	93
enviroOSH Legislation	96	89	73	92
IPCS INCHEM	80	90	90	90
IPCS INTOX	40	80	80	80
All products	84	88	83	87

Source: Survey of CCOHS customers

d) Evidence from Former Product Customers

Former customers can often be an important source of information, particularly in pinpointing dissatisfaction with products relating to price, service or quality. One component of this evaluation conducted telephone interviews with a random sample of former clients of CCOHS information products and services. In total 50 interviews were conducted with 30 Canadian, 15 US and 5 international respondents.[8] The use of CCOHS products varied from a one-time purchase to multi-year relationships. The average length of familiarity or purchase of CCOHS products was 3.5 years.

Respondents were asked why they no longer purchase the products in question. Their responses fell into two main categories:

- They had ordered the material(s) for a specific project or purpose and this has been served; the materials were no longer needed on an ongoing basis. Most of these respondents, when asked, stated that they would be very willing to purchase additional products from CCOHS if the need arose in the future.
- They were unaware that the subscription had lapsed or were planning to (or had just) re-subscribed.

[8] The questionnaire and a summary of the findings from the telephone survey of former customers is shown in Appendix D to this report.

Only one respondent reported that he had found another supplier who was able to supply a similar product at lower cost. A small number of respondents indicated that the portion of the product that they originally required was now available to them over the internet for free or at minimal cost. In some cases, the CCOHS web site was cited as the source that replaced the need for the purchased item.

The former subscribers reported extensive use of the CCOHS Inquiries Service. Approximately half of Canadian respondents indicated that they had used the service at least once.

Similarly, many former subscribers reported use of the CCOHS web site. Approximately 75% of Canadian respondents reported using the site. US and international respondents also reported using the CCOHS web site; 75% of US respondents and 80% of international respondents.

Finally, respondents were asked to comment on their level of satisfaction with the CCOHS products they had purchased. Respondents were largely positive when they spoke about the Centre's products and the way in which they were served by CCOHS staff. Respondents spoke about their satisfaction with the quality of the products and with the timeliness of their delivery. They felt that CCOHS staff were courteous and professional.

e) Interviews with Key Informants

Interviews were conducted with 51 key informants representing a range of CCOHS stakeholders, including business, labour, government and non-governmental organizations.[9] Both national and international organizations were included. The majority of interviewees, 85%, were direct users of CCOHS products and services.

Respondents were asked to comment on which products/services their organization has used in the past year. In many cases interviewees were unable to remember the name of the product/service or all the products purchased by their organization. Based on responses provided by interviewees, labour organizations are the most frequent users of free services (CCOHS Inquiries Service and CCOHS web-site). Non-governmental organizations (Workers' Compensation Boards, international organizations and national health and safety organizations) tend to use a broad range of CCOHS products and services. A number of these organizations have close working relationships with the CCOHS.

The most frequently cited use for CCOHS products and services was for employee reference and research. Other frequently cited uses include verification of compliance with OSH regulations and answering technical inquiries from employees, their membership or the public. This indicates extensive sharing of information purchased or received from CCOHS.

Overall, interviewees indicated that their organizations use of CCOHS products and services has tended to increase in the past few years. The reasons cited include:

[9] The interview protocol, a list of key informants and a summary of findings from the telephone interviews with key informants is shown in Appendix E.

- Availability of CCOHS information on organization's intranet.
- Tendency, according to respondents, of individuals to be more aware of the need for information than in the past. The method used by CCOHS of delivering information makes it easy to get good information quickly.
- The use of CCOHS contractual services led to an increase in the organization's use of CCOHS products/services.

There were, however, a small number of respondents that noted that their organizations use of CCOHS products/services has decreased in recent years due to increased availability of free information on the Internet.

The issue of charging for products and services is important for CCOHS because of the nature of the information and the nature of the organization. We asked respondents to comment on the policy of charging for CCOHS products and services. Twelve respondents noted that charging for information should be looked at from the perspective of the different groups involved. These respondents noted that the ability to pay and the level of information required differs for employees, unions and different sizes of business. This led to the following suggestions for deciding which information to provide for free and which information to charge for:

- Discretionary pricing based on the size of the organization and ability to pay. Some of these respondents noted that some workers would not be able to pay for CCOHS information if there was a charge.
- Distinguish between 'basic' information and information of a more technical nature. This view suggests that basic health and safety information should be available to anyone who wants it for free. Those who want the more technical or specialized information should pay.

Overall, respondents feel that the CCOHS products/services purchased by their organization meet their needs. The majority believes that CCOHS products/services meet needs that cannot be met by other sources of information. In a small number of cases, other sources of information are used but CCOHS is considered the primary source of OHS information. Other respondents noted that their information needs could be met by other sources, internet being the most frequently cited alternative.

In general, interviewees believe that CCOHS is well known in Canada and internationally. There is some sense that CCOHS is better known in Ontario than elsewhere in Canada due to the geographic location of CCOHS. Some suggestions for increasing the profile of CCOHS includes; satellite offices in regions outside of Ontario; increased partnering with regional Workers Compensation Offices (WCBs); and partnering with universities that provide OHS training. CCOHS, according to interviewees is best known for its CD and databases both internationally and within Canada.

A key component of the mandate of CCOHS is to facilitate partnerships among workers, unions, employers and government with respect to OHS. The majority of

respondents believe that the Centre has done this to some extent. Many noted that more could be done but that the Centre has done as much as can reasonably be expected given the budget constraints of CCOHS.

The issue of provision of free services is strongly supported by an overwhelming majority of key informants. Representatives from labour unions feel particularly strongly about this. They feel that workers must have a credible source of information for which there is no fee. According to respondents, charging a fee for services currently provided for free would result in far fewer workers accessing the information they need to protect themselves.

The general feeling among interviewees is that basic information, particularly information intended for individual workers, should continue to be provided free of charge by CCOHS. It is understood by respondents that CCOHS cannot provide all information for free, free services must be paid for either through increased government funding or revenues from sales.

Approximately one quarter of interviewees believe there would be little or no impact if CCOHS were to increase fees for products it currently charges for. In general these respondents feel that as long as CCOHS products remain competitively priced then there will be no loss of business. Representatives from labour were, overall, much less optimistic. They predict that higher prices will result in decreased purchases of CCOHS products. Overall, there are indications from interviewees that the ability to pay has a bearing on how organizations perceive the potential impact of an increase in price. Larger organizations are better able to absorb the price increases.

The majority of interviewees expressed the belief that CCOHS has contributed to improved workplace safety in Canada although none were able to provide quantitative evidence to support this. The general sense among interviewees is that the availability of information and the perception that the information provided by CCOHS is unbiased must be resulting in fewer accidents and injuries.

C. IMPACTS AND EFFECTS

The logical links relating CCOHS programs and activities to improved workplace outcomes are clear. CCOHS assembles and disseminates information on health and safety. Some of this information is directed to workers who are dealing with a workplace issue and seek information from the Inquiries Service and/or the web site. The results of this evaluation confirm that many individual workers use CCOHS to provide them with assistance on a specific workplace health or safety issue. There is strong support for the continuation of this free service. The CCOHS information products that are sold also have direct application in the workplace. Our survey results show frequent use of these products by many people in the organisations that purchase them. The entire range of workplace partners-workers, their unions, employers and governments use CCOHS information products to promote occupational health and safety.

We base the assertion of widespread use of CCOHS information on several sources of evaluation evidence. This evidence consists of survey data from customers, users of the

Inquiries Service, users of the web site and key informants. Evidence from these sources provides a consistent picture of widespread use of CCOHS health and safety information.

It is not possible to add up all of the independent sources of data on the use of CCOHS products and services because we do not know how many of the inquirers or web site users are employed in organizations that buy CCOHS products. It would be double counting to include them again as users of other services. However, the Inquiries Service does deal with approximately 15,000 inquiries annually while the web site deals with approximately 1.5 million. Although these data cannot be linked to accident or illness data, the widespread and frequent use of CCOHS information implies that there will be important workplace impacts.

The interviews with key informants confirm the data from the surveys that imply important workplace impacts of CCOHS. Interviews were conducted with 51 key informants from a range of organizations representing business, labour, government and non-governmental organizations. Key informants were chosen based on their involvement in the OHS community internationally and within Canada. Over 40% of interviewees actively promote the use of CCOHS products and services both within their organizations and outside. Approximately 85% of the key informants' organizations use CCOHS products and services, in most cases more than one product or service is used.

Ideally, the analysis of program impacts would relate the logical program linkages to actual outcome data. The complexity of the process leading to occupational illness and accidents means that this is not feasible. Neither the CCOHS nor any other organization that provides necessary information to promote health and safety in the workplace is able to assess this.

We know that the use of appropriate information on safe workplace practices will reduce risks. This evaluation has generated substantial data on the use of CCOHS information. There can be little reasonable doubt about its widespread use. However, in our view, any attempt to directly link specific information sources with specific reductions in occupational accidents and illness would not be credible.

D. COST-EFFECTIVENESS AND PROGRAM ALTERNATIVES

From the point of view of its customers, the products sold by CCOHS represent good value for money and can be described as cost-effective investments. The savings in time costs for health and safety professionals who would have to access information in other ways appear to be substantial. According to key informants, the costs of CCOHS products compare favourably with those of competing products. Some key informants noted that although similar information may be available from other sources such as the Internet, often for free, but that the cost in terms of the time required to search for this information makes CCOHS information the less costly alternative.

Like most other information providers, CCOHS has substantial fixed costs associated with developing and maintaining data bases. These fixed costs are necessary to generate and keep current the information that is sold in the form of CCOHS products and to provide the

information base for the Inquiries Service and the web site services that are provided free of charge. Again as is the standard case with information, the high fixed costs of producing information stand in contrast to the relatively low marginal cost of distributing the information.

From a public sector perspective, the further question related to cost-effectiveness is the extent to which CCOHS represents a cost-effective use of the tax dollars provided to it. This question is a difficult one on which to provide a definitive answer because this approach to cost-effectiveness requires information on the value of the complete set of services provided by CCOHS. This evaluation indicates that the value of these services is high. There are many users of the substantial quantities of occupational health and safety information produced and disseminated by CCOHS. It is our assessment that CCOHS produces very large quantities of useful information for a relatively modest public expenditure. However, the attribution problem, discussed earlier, means that we cannot pinpoint cost-effectiveness in terms of value for money. That is, we know only the expenditure on CCOHS, not the value of its services in dollar terms. This point is considered in more detail in the following section.

E. ISSUES ARISING FROM THE EVALUATION

1. Social benefits of CCOHS

CCOHS provides information that promotes occupational health and safety. The benefits are improved workplace conditions that ultimately lead to fewer illnesses, fewer injuries and fewer deaths. Reduced time loss and increased productivity are tied to these benefits. To the extent that CCOHS information is used to promote workplace change, the ultimate social benefits can be very high. Calculations shown earlier in this chapter show that a 1% reduction in occupational injuries and fatalities would generate risk reduction benefits of approximately $180 million per year.

2. Paying for health and safety information

Information is valuable and, as a result, there is a willingness to pay for it. However, as a "commodity", information differs from other commodities in two important ways. The standard economics literature points out that information has characteristics of a public good. Economists define a public good as a good with both of the following characteristics:

- Information, as a public good, is non-rival meaning that many users can share or benefit from the same information.
- Once revealed, information has high costs of excluding non-payers, frequently referred to as free riders.

Standard commodities are rival in consumption, meaning that consumption by one person reduces the amount available for others. Information, on the other hand, is non-rival meaning that my consumption (use of information) does not affect the ability of others to use

the information. Once produced, a specific information product may benefit many consumers. This literature has been applied widely for information products.[10]

For standard commodities, the costs of excluding non-payers are low. If you do not pay, you are not able to consume. Information, once revealed, is difficult to control in use so that payers and non-payers both benefit from its provision. Non-payers in the literature of economics are referred to as "free riders".

For information that is already produced, use by free riders generates social benefits. The marginal cost of further use of existing information is zero so that allowing additional use at a price of zero is efficient. However, new benefits come from new information that is costly to produce. A zero price for existing information means that there is no private incentive to produce new information through markets. Although it is efficient to distribute existing information at a zero price, the long run effect of this is to reduce the supply of new information.

Given this divergence between efficiency in distributing existing information at a zero price and efficiency in producing new information (where a positive price is required to cover costs), what are the policy options for producing information? Many types of information are produced through markets on a regular basis so that this is clearly an option. However, the discussion above indicates that market provision is financially feasible only if providers can deal with the free rider problem. That is, they must develop exclusion mechanism for non-payers. Limiting the number of copies or installs of a computer disc is an example of this.

The other alternative is to have public provision of this type of information with the costs of production of the information paid for through tax revenue allowing distribution of the information at no charge to the user. Combinations of these two alternatives can also be used and are, in fact, used in many circumstances. A purely market-based approach to information provision is not frequently used because most providers have difficulties with the free rider problem and if they do not, there is a concern that their pricing policies will lead to under-utilization of available information.

This discussion places the CCOHS information provision role in the context of standard economic analyses of public goods. There are a number of rationales for government support of information-related activities but the public goods component is the core rationale and the one that applies to CCOHS. Other examples include government support of R&D that can be also described in terms of producing information. The benefits of R&D extend beyond the firms that pay for it so that markets will under-invest in its production. Similarly, health and safety information has benefits that can extend broadly beyond their initial use so that there is a related rationale for government support.

This element of the rationale for public support for CCOHS is strong. The information provided by CCOHS is a public good. Many users can benefit from this information once produced. This means that the social benefits of the information can be

[10] See, example, Bruce Kingma (1996) *The Economics of Information: A Guide to Economic and Cost-Benefit Analysis for Information Professionals.* Colorado: Libraries Unlimited.

large relative to its cost of production. The public goods discussion above focuses on the failure of markets to provide the socially desirable quantities of information. There are many market contexts in which information may not be sufficiently available (relative to the socially desirable result). In a leading economics text, Boadway and Wildasin provide an example related to the safety of consumer products. They note:

> Consumers might not know the implications of various products for their health and safety, nor will they have full information on the relative merits of various competing consumer items....The provision of information has the attributes of a public good, especially the joint consumption property (non-rival). Thus, information on product safety and health hazards is often publicly provided (for example, the U.S. Food and Drug Administration).[11]

This example from the literature refers to the safety of consumer products purchased in product markets. The same information issue applies to workers in labour markets and the same rationale for government provision of information emerges.

In the current policy situation facing CCOHS, this public goods issue becomes the extent to which the information products of CCOHS are cost recovered and the extent to which they are provided at no cost to users through government support.

The economics literature suggests that most information products are public goods. The degree to which they are public can vary substantially and changes in technology can affect the costs of excluding non-payers and thereby change how public the information is. (Copying technologies have made it easier to be a free rider for many types of information). Many information products are still supplied through market mechanisms in which users pay. Pure public goods generally require government provision but for goods with varying degrees of publicness, many combinations of payment and provision with no fee will exist.

The literature described above fits well with the two general scenarios associated with the current operations of CCOHS. Databases and integrated information products used on a continuing basis by OHS professionals are subject to cost recovery. Intermittent and highly variable information requests by a wide range of persons and for which the information can lead to positive impacts (benefits) for a large number of co-workers are provided without a fee to users. Corresponding to this division, the Inquiries Service and the OSH Answers component of the web site have strong public good characteristics. The outputs are valuable, others are not likely to produce them and attempting to charge for these services would not be cost-effective.

The products that are sold by CCOHS have some public goods characteristics but charging users is feasible. The rationale for government support for the core CCOHS activities is that the outputs are valuable to society (the outputs yield significant social benefits), they cannot be supported without government covering their costs and no other organization is likely to supply these outputs if CCOHS does not.

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[11] Boadway and Wildasin (1984), *Public Sector Economics*. pp. 65-66.

In a recent review of cost recovery experience in Australia, the Productivity Commission (2000) points out that cost recovery practices vary significantly in Australia and that regulatory agencies are much more likely to cover their costs than information agencies. The report notes that:

> Typically, information agencies distinguish between core services, which are mostly funded through general appropriations, and non-core services, which may be cost recovered.

The Productivity Commission later notes:

> ... for the public good reasons outlined earlier, core services, which invariably include most of the primary data collection and compilation tasks, should be primarily funded from budget appropriations.[12]

The Canadian Treasury Board policy with regard to cost recovery procedures and requirements applies largely to regulatory agencies. These agencies frequently face a captive market (drug approvals, for example). The rationale for cost recovery from regulatory activities is clear. Firms producing products requiring regulatory approval and consumers using these products should pay for the quality and safety guarantee services of government. In the absence of these services, consumers would still wish to have quality assurances so that a private testing agency would be the likely alternative. Firms and their customers would pay for this testing as they do when government provides the same services.

Information services, on the other hand, are not provided on a mandatory basis to a captive market. It is primarily for this reason that we argue that the restrictive elements of Treasury Board charging policy (cost recovery) do not apply to CCOHS. Note that this implies that TBS policy does not, in general, restrict CCOHS pricing, but at the same time, it does not imply that cost recovery charges should cover all costs.

[12] Productivity Commission, *Cost Recovery: Draft Report.* AusInfo, Canberra, 2001, 2001 Chapter 2, page xxxii and page 22.

V ADHERENCE TO THE FEDERAL GOVERNMENT POLICY ON COST RECOVERY

This chapter of our report summarizes our findings from our review of cost recovery practices at CCOHS. The following sections briefly review the context for cost recovery in CCOHS, the level of adherence with the federal cost recovery policy, and key conclusions.

The findings presented draw upon the following aspects of our work in carrying out this project:

- Interviews with CCOHS managers.
- Findings from the evaluation surveys and key informant interviews.
- Findings from 14 supplementary interviews investigating pricing and willingness to pay among CCOHS customers.
- Interviews with managers at two analogous federal organizations (Statistics Canada and the Canada Institute for Scientific and Technical Information (CISTI) at NRC).
- Interviews with program and cost recovery groups at Treasury Board Secretariat.

A. CONTEXT

The Canadian Centre for Occupational Health and Safety Act does not explicitly define the powers of CCOHS to set fees and collect revenues, other than through Section 6-1-(g)—*to expend, for the purposes of this Act, any money appropriated by Parliament for the work of the Centre or received by the Centre through the conduct of its operations.* The Centre introduced cost recovery in 1987 to cover the overhead cost of producing CDs. In 1989, Treasury Board directed CCOHS to become fully cost recoverable. Between 1987 and 1996 CCOHS progressively increased its cost recovery revenues to the point where they peaked at $4.65 million, which represented 68% of total funding (Main Estimates Vote, Supplementary Vote(s) and cost recovery revenues) in that year. Revenue levels have remained relatively constant since 1996, varying between $4.1 and $4.65 million.

While the setting of fees and collection of revenues may enable the Centre to fund a higher level of activity than might otherwise be the case with 100% public funding alone it does raise a question as to whether the imposition of fees for the provision of information impedes the achievement of the CCOHS mandate. The Centre has taken the approach that fee revenues can be generated from certain products and activities, but that certain core products and services need to be provided on a no-charge basis.

As a result, CCOHS has three distinct product categories:

- ***A free, confidential OSH Inquiries Service***, in which OHS information on specific questions and topics is disseminated via telephone, mail, e-mail and web-based inquiries services accessible to all Canadians in English or French.

- ***Marketing and sale of "packaged" combinations of OSH information*** compiled from the same data bases and sources of information used to support the Centre's free products and services. These products are primarily intended to support people working in the OSH field in Canada and internationally. Our research found that 35% of the current paying customers surveyed also used the free CCOHS web site to obtain information and 15% used the free telephone/e-mail Inquiries Service.

- ***Conduct of OHS consulting projects on a contract or shared-cost basis.*** CCOHS undertakes such projects primarily to keep the Centre on the leading edge of OHS knowledge, and to enhance the knowledge available to its staff and clientele. Revenue generation is a secondary consideration.

It is also important to bear in mind when reviewing the performance of the Centre that both the free and priced products and services draw upon the same core information holdings. As such, it is not possible to make a clear distinction between "core" and "non-core" information products. The basis for differentiation between free and priced is in the means by which information is disseminated and the level of specificity. Information disseminated through the free Inquiries Service typically relates to a highly specific question or concern of the individual caller. Priced products contain more extensive amounts of detailed information that may apply across a wide range of OHS situations and users. These products are formatted to facilitate information searches and extraction of specific items by clients based on their information needs.

B. APPLICATION OF THE COST RECOVERY AND CHARGING POLICY TO CCOHS

The federal government's *Cost Recovery and Charging Policy* defines the guiding principles for cost recovery by government departments and agencies. The purpose of cost recovery is to:

- Promote the efficient allocation of resources.

- Promote an equitable approach to financing government programs, mandatory or otherwise, by fairly charging clients or beneficiaries who benefit from services beyond those enjoyed by the general public.

- Earn a fair return for the Canadian public for access to, or exploitation of, publicly-owned or controlled resources

Decisions regarding the application of the policy must also take into account the mandate and policy objectives of the organization, and whether their achievement may be compromised. The CCOHS cost recovery efforts pre-date the current Treasury Board

guidelines on cost recovery. The challenge for CCOHS in applying the policy is to find an appropriate balance between achieving:

- Its mandate to support efforts to improve workplace safety and health.
- The efficient use of available resources.
- An optimal level of funding to develop and deliver required services.

The following sections examine the consistency of the approach of CCOHS to fee setting and cost recovery with key aspects of the cost recovery policy. This examination considers both the economic rationale for cost recovery and operational requirements for cost recovery activities, as presented in the policy.

1. Do CCOHS products and services confer public or private benefits?

The federal government's cost recovery policy states that: It is government policy to implement user charges for services that provide identifiable recipients with direct benefits beyond those received by the general public, unless overriding policy objectives would be compromised and that there is a continuum between purely "public" and purely "private" goods.

CCOHS products and services provide a mix of public and private benefits, in that CCOHS products and services:

- Produce **externalities**, that is, the information and guidance provided produce broader social benefits—by contributing to the management of workplace health and safety, and reducing work-related fatalities, injuries and illnesses, and ultimately, reduce demand on, and costs of, health and social services. The implicit expectation in the mandate and powers of CCOHS, as noted earlier, is that dissemination of health and safety information contributes to the achievement of broader policy objectives.
- Are **non-rival** in consumption, that is, consumption (use) of the information made available by one user does not affect the availability nor consumption of this information by other users, and the marginal cost of making information available to additional users is, in relative terms, close to zero.
- **Private benefits** accrue to the consumers of OHS information made available by CCOHS, in that they use the information to, for example, ensure their working conditions are safe and comply with relevant regulations, reduce costs and maintain or enhance productivity. However:
- The CCOHS inquiry and web services are largely **non-excludable**. That is, CCOHS is not able to (nor does it wish to) readily control access to these services through the use of fees. Users of these services are most likely to be once-off users seeking highly specific, and highly varied, answers and

information. Imposition of fees to access the required information would be time-consuming, administratively complex and would limit achievement of the Centre's mandate. Non-excludability together with the non-rival characteristics makes this information a public good.

- The CCOHS "packaged" OHS products are, to a much greater extent, **excludable**. Access to these value-added products by users— who are fewer in number, have continuing needs to access and apply a broader range of OHS information in their operations, and derive time and cost savings from such use—can be controlled and administered more readily. As such, cost recovery fees are feasible and, as the survey findings show, users are prepared to pay for the convenience and value provided by these products.

The above characteristics of the products and users indicate that they provide a mix of both public and private benefits, and that cost recovery fees are appropriate as long as they do not impede the achievement of the organization's mandate and its contribution to broader social benefits for Canadians.

2. What type of product or service is OHS information, and to what extent is CCOHS the only source of such information?

A number of alternative approaches to setting prices are possible under the cost recovery policy, linked to the type of product or service provided. CCOHS falls into the information products category, based on the definition of information products contained in Reference Note 5 of the policy, where information products are defined as *products, regardless of format or media, that contain information about federal policies, programs and services that have been created and published by or for government departments and agencies for the purpose of distribution or sale.*

Reference Note 5 of the policy also states that *(m)any institutions have a responsibility for disseminating information pursuant to specific legislated requirements,* and *(i)n the absence of a specific authority, they must determine their responsibilities in this area in the broader context of promoting "open government".* The Reference Note goes on to state that information should not be subject to charges when it leads to a better informed public, and cites four specific situations when charges are not appropriate, including when it *informs the public about dangers to health, public safety or protection of the environment.*

We believe that OHS information compiled and disseminated by CCOHS does play this role, especially information that is made available through the Inquires Service and OSH Answers section of the CCOHS website.

Prices for information products and services should be cost-based for information products. Given the mix of public and private benefits provided by CCOHS products, these prices should be lower than their full costs. How much lower is a matter of judgment, and shaped by other considerations, such as the availability of OHS information from alternative public or private sources, and the willingness of users to pay for such information.

The user surveys conducted for this evaluation and research conducted by CCOHS shows that OHS information can be purchased or freely acquired from a number of alternative sources. For example, relevant federal and provincial legislation, regulations and standards can be accessed at various government websites, or purchased from CCOHS, private organizations (e.g., from Southam and CCH) and not-for-profit organizations (e.g., CSA). In recent years the increasingly ubiquitous nature of the Internet and World Wide Web has made the type of information that CCOHS draws upon in its services more widely accessible to end-users and increased the range of alternative information sources potentially available to these users.

However, these alternative sources and products are by no means perfect substitutes for CCOHS products and services. Differences occur along a number of dimensions:

- **Source credibility.** While the Internet may have vastly improved access to information it does not mean that the information available is necessarily accurate, up-to-date nor complete. Source credibility—as demonstrated by the reliability of the source information used by suppliers and the reliability and credibility of the organization distributing the information—is very important to the majority of users. CCOHS benefits in this regard because it is a public organization, it has a tripartite Council of Governors representing business, labour and government, it specializes in OHS information for all sectors of the economy, and it engages in consulting activities that contribute to the stock of OHS knowledge.

- **Relative completeness**. Some organizations offer information that meets the needs of specific industry sectors or covers subsets of the full universe of OHS information whereas CCOHS (and other national OHS bodies) aims to meet needs across the board.

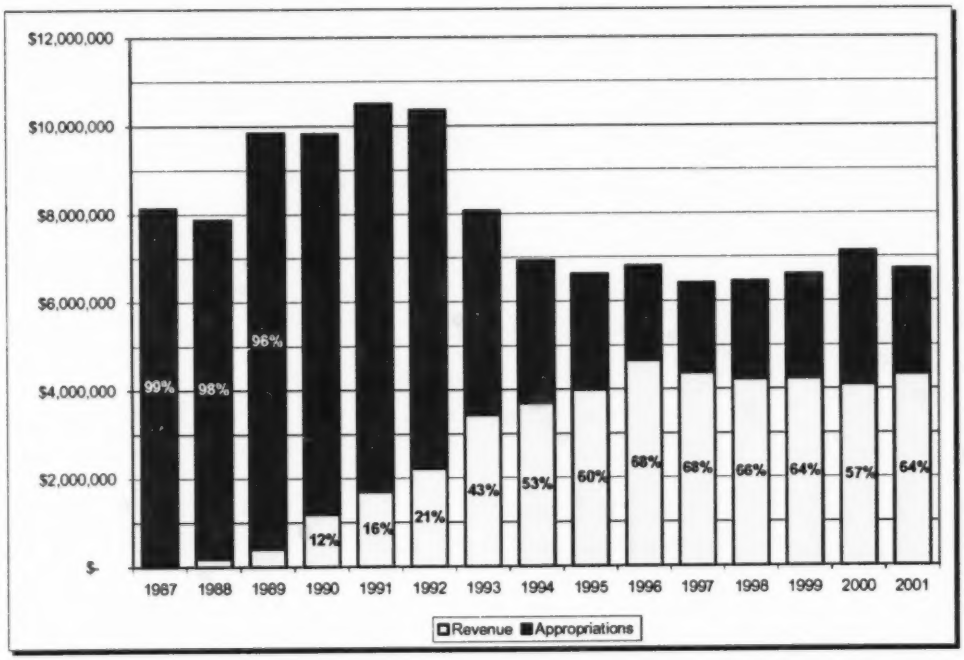
- **Ease of access and use.** The very breadth and depth of OHS information available makes it hard to find specific information or to even know where to start for many people. The broad target audience for CCOHS information means that it has had to find ways of organizing and packaging OHS information to enable its own staff to respond to information requests as well as incorporating these value-added access and search features into its priced products. This ease of accessing and searching provides significant benefits for users—in the form of time, and thus cost, savings—that further reinforce the differences between alternative sources.

When these factors, and the findings from the evaluation reported earlier in this report, are taken into account it is clear that CCOHS fulfills a relatively unique position in the OHS information milieu. This uniqueness cannot be taken for granted and must continue to evolve in response to advances in information dissemination technologies and continuing growth in the stock of OHS knowledge.

3. What is the relationship between costs and fees?

At a macro level, cost recovery revenues of CCOHS do not exceed costs. Over the five year period 1996-97 to 2000-01 revenues from cost recovery accounted for an average of 64% of the centre's total funding. This compares with an average share of 46% during the 1991-92 to 1995-96 period and only 8% in the 1986-87 to 1990-91 period. Exhibit V-1 shows the actual year-on-year contributions of the cost recovery revenues to total funding. It also shows how the level of cost recovery has increased, as public appropriations have fallen, to hold total funding relatively stable.

Exhibit V-1 Trends in the Level of Cost Recovery at CCOHS



The level of cost recovery achieved by CCOHS is very high compared to that achieved by comparable information agencies in Canada and internationally. For instance:

- Statistics Canada's revenues were equivalent to 16% of total expenditures in 1999-2000, and revenues at CISTI are about 50% of expenditures.

- According to the recent draft report of the Australian Productivity Commission on cost recovery arrangements among Australian government departments and agencies, information agencies typically recover small proportions of their costs. Among the nine organizations that provided data to the commission the average level of cost recovery was 13.6%—three had

levels of less than 10%, five between 13.9% and 17.3%, and one achieved 50.9%.[13]

- The Australian agency with a similar mandate to that of the CCOHS—the National Occupational Health & Safety Commission (which is not included in the nine organizations referred to in the previous point)—had expenditures of $21 million in 1999-2000 and revenues from the sale of goods and services of $1.13 million, giving a 5.4% cost recovery rate.

- Similarly, the Finnish Institute of Occupational Health had a total budget for 2000 of 331 million Finnish Marks (approximately C$75 million) of which 80 million was revenue from services, equivalent to 24.2% of total expenditures.

While CCOHS takes a cost-based approach to setting its prices it is not possible to establish a clear and consistent basis for allocating costs between its priced and free services. This is because all services—priced and free—draw upon a common stock of OHS information and data. Costs to maintain and enhance this core set of databases and other information cannot be readily, or accurately, attributed to the Centre's products and services.

Price setting for the Centre's priced products takes into account the direct costs involved in producing and supplying these products, as well as prices of alternative or competing products, and affordability of products to desired users.

Direct labour and other costs attributable to the priced products can be measured using information from the Centre's time recording and general ledger systems. An analysis of this information for the 1999-00 and 2000-01 years found direct labour and other costs were 47% and 49%, respectively, of revenues. This means that approximately 50% of revenue that is generated is available to fund the costs of maintaining the core information collection, providing free information dissemination services, and administration and other overheads.

In this regard, CCOHS is similar to CISTI, which also funds part of the cost of maintaining its core information collection from user revenues. CCOHS differs from Statistics Canada, where prices for publications (electronic and paper) are set to recover only those costs incurred "post camera", that is, for activities involved in printing, marketing and distributing publications, with the costs for data collection, processing and standard analyses funded from public appropriations.

Pricing of consulting projects is approached on the basis of recovering at least direct labour costs (including benefits) plus a 25% overhead contribution. The selection and pricing of these projects also takes into account:

- The potential for such work to enable new, revenue-generating OHS products or new information resources to be developed.

[13] Productivity Commission, *Cost Recovery: Draft Report*. AusInfo, Canberra, 2001, Appendix C, p.C16. (Accessible at: www.pc.gov.au/inquiry/costrecovery/index.html)

- The work will enable the Centre to stay on the leading edge of OHS research and information developments.
- The work offers the potential to achieve far-reaching impacts and social benefits.

4. Has CCOHS undertaken meaningful consultations with users in setting its fees?

The cost recovery policy also requires that departments undertake meaningful and effective consultations with clients throughout the fee setting process with the aim of avoiding the imposition of unreasonable cost burdens on clients. In practice, the scale of consultation undertaken by government departments and agencies varies according to the significance of the costs in question to users and type of service involved. Consultation activities related to the pricing of mandatory regulatory services are typically much more extensive than those undertaken by information agencies operating in a more commercial context.

The scale of client consultation regarding prices at CCOHS has been undertaken on a more informal, ongoing basis—as part of the Centre's day-to-day marketing and customer service activities. Additional feedback on cost recovery and pricing issues is also available to CCOHS from two other sources. Firstly, through the functioning of the Centre's tripartite council, which brings together government, employer and labour representatives to provide guidance and direction for the Centre's management. Secondly, consultation has been carried out through the inclusion of cost recovery and willingness to pay questions in the surveys and key informant interviews conducted as part of this evaluation.

Findings from our surveys and key informant interviews provide some additional insights. These sources, albeit from a small sample, indicate that users of the Centre's priced products value the OHS information they receive and are prepared to pay for the value-added benefits incorporated into these products. The feedback from these customers suggests that there are no obvious price leaders amongst suppliers nor is there close competition between similar products, with many of the interviewees being unable to cite equivalent products from other suppliers. This feedback also suggests that, for a majority a users, an increase of 10-15% in prices would not be a major issue, with some indicating that an increase of over 20% would be necessary before they would consider finding alternative sources of OHS information similar to that provided by CCOHS. However, this does not mean that significant price increases to increase the Centre's level of cost recovery could be readily passed on to users without any losses, with some users indicating that increases greater than 5-10% would mean that they would conduct their own OHS information collection activities using the Internet or find new providers.

5. Is it feasible to administer fees and collect revenues from all users?

CCOHS operates with three broad categories of products and services, as described in the Context section of this chapter—a free, confidential Inquiries Service, sale of packaged

combinations of OHS information, and contract and cost-shared OHS consulting projects. The feasibility of applying fees and collecting revenues varies among each of these:

- The **Inquiries Service** has a large number of users—15,000 telephone, e-mail and Internet based inquiries in 2000/01 plus 1.5 million hits on the OSH Answers pages on the CCOHS website—each of which is typically seeking quite specific information relating to an immediate need or interest, and thus obtains private benefits. We would expect that the time and cost involved in establishing and administering systems to collect fees from these users would prove to be a significant disincentive for people to use the service and runs counter to the overall goals and mandate of CCOHS.

- Users of the **packaged information products** differ from the users of the Inquiries Service in a number of ways. They are typically organizations rather than individuals and require a broader range of information to inform and facilitate OHS management. In 2000, CCOHS had just over 3,000 users listed in their customer database, with an average annual expenditure on CCOHS products of $674 per CCOHS customer. These users have demonstrated that they value access to more extensive, and packaged, combinations of information, and the administration of user fees for these clients does not represent a significant burden to CCOHS.

- The primary reason for undertaking **consulting projects** is not to generate additional revenue, even though such projects account for one-third of the Centre's revenues. These projects are undertaken with the expectation that they will yield additional information for the Centre's core collection and potentially lead to new products or services. As such, they are probably best viewed as applied research and product development projects, for which it is desirable to recover the incremental costs of such work plus a contribution to indirect costs.

We believe that the differentiated approach taken to pricing these different services represents the most practical and cost-effective approach to administering fees and managing revenues for CCOHS.

C. KEY CONCLUSIONS

In overall terms, the approach to cost recovery at CCOHS adheres to the requirements of the federal government's *Cost Recovery and Charging Policy* while being sensitive to the overriding importance of the Centre's legislated mandate, to support the achievement of improved levels of workplace health and safety. The key factors supporting this conclusion are:

- Cost recovery at CCOHS was introduced in 1987 in order to recover the out of pocket expenses related to the production of CDs. CCOHS was directed by Treasury Board to implement full cost recovery in 1989. Between 1990 and 1996 public appropriations fell from close to $9 million to $2.25 million, and

revenue from cost recovery grew to $4.65 million to enable CCOHS to maintain total funding at, or slightly below, $7 million. The level of cost recovery at CCOHS—with an average of 61% of total funding coming from cost recovery revenues over the last five years—is significantly higher than that achieved by OHS agencies and other public information agencies in Canada and internationally.

- The CCOHS products and services provide a mix of public and private benefits. Public benefits are provided through the Centre's contribution to efforts to reduce workplace safety and health incidents and related costs to society, industry and individuals. Private benefits are derived by individual workers and employers, in the form of reductions in their workplace risk and costs flowing from the direct application of OHS guidance and information provided by the Centre.

- Cost recovery has facilitated the efficient allocation of resources at CCOHS. The Centre's products and services draw upon a common series of information databases. Use of this core information has been maximized through the development and delivery of a mix of priced and free services, supported by OHS and information specialists, client service staff and marketing staff. The free services—the Inquiries and web-based OSH Answers services—primarily cater to the needs of individuals with specific OHS needs while the priced services—value-added combinations of OHS information—primarily cater to people working in the OHS field requiring a broader range of information.

- The CCOHS products and services fit the definition of information products used in the federal government's Cost Recovery and Charging policy and, to a certain extent, these products and services play a role in informing the public about dangers to health and public safety. The policy states that this type of information should not be subject to cost recovery.

- Some of the OHS information disseminated by the Centre is also available from other sources, both public and private. However, these alternative products and services are not perfect substitutes in that they either do not have the same breadth of coverage, ease of use or credibility and objectivity offered by CCOHS.

- The Centre's cost recovery revenues do not exceed its total costs (on average revenues amount to 61% of costs). The amount of revenue achieved—approximately $4 million per year over the last seven years—exceeds the direct costs attributable to the production, marketing, distribution and support for the priced products. The revenue earned enables CCOHS to obtain a contribution of approximately 50 per cent to the cost of maintaining the core information collection, provision of the Inquiries Service and administration.

- User feedback regarding the pricing of CCOHS products and services is primarily obtained on an ongoing, informal basis, through contacts between

users and CCOHS marketing and support services and the Centre's tripartite Council. Additional feedback was obtained from user surveys conducted as part of this evaluation. As noted elsewhere in this report, users of the priced products have a high level of satisfaction with the Centre's products and the cost of such products is not significant for the majority of buyers.

Based on these findings we believe that CCOHS is at the limit of what it can achieve in cost recovery revenues without harming its ability to achieve its mandate. Users of its priced products are already making a significant contribution to the funding of its core activities, which support the provision of both priced and free services.

VI POTENTIAL FINANCIAL OPTIONS

This chapter presents and reviews potential options to put CCOHS on a more stable and sustainable funding basis, drawing on the findings from our analysis of the Centre's current financial position and performance. Each of the potential options focuses on generating growth in the funding base. We have not proposed an option to reduce expenditures given that the Centre has already made significant cuts in its resources and streamlined operations in response to past reductions in funding. Indeed, it is clear that the Centre is operating in an environment of uncertainty with its history of annual supplemental appropriations. Further, the Centre has been living off its capital, making limited investments in maintaining its core resources and systems, including its human resources. On this basis, we conclude that any further reductions would threaten its long term viability.

The first section of the chapter presents a brief set of guiding principles or criteria that each funding option should satisfy. It is followed by a high-level estimate of the level of funding required to put the Centre on a more secure footing, and breakdown of the allocation of additional funding over and above the current expenditure level of approximately $7 million. We then present each of the potential options and review the:

- Scope of the option.
- Critical success factors.
- Risks.
- Potential costs.
- Potential benefits and outcomes.

The final section presents a preferred strategy, which combines elements from across the range of options.

A. GUIDING PRINCIPLES

CCOHS will need to balance a number of guiding principles or parameters in seeking ways to strengthen its funding base. Key amongst these will be:

- **CCOHS must provide a range of products and services that enable it to satisfy its mandate**—a source for unbiased technical information and expertise to support the efforts of governments, labour organizations, employers and individual Canadians to improve workplace safety and health—and undertake supporting research and maintain an operational infrastructure that ensures it can maintain and enhance this performance. This means that the Centre should:

- Continue to offer free, confidential access to its Inquiries Service and web site (OSH Answers). These are the principal means of responding to citizens in need of specific OHS information.
- Ensure that opportunities to use cost recovery to generate revenues do not impede the delivery of the Centre's products and services, or divert attention from the achievement of the mandate. In particular, the Centre should not pursue revenue opportunities unless they significantly advance the OHS objectives.

- **CCOHS must keep current its core information collection and the information technologies that the collection, the Centre's web site and many of its priced products rely on.** This continuing development is central to the provision of up-to-date and comprehensive OHS information to users. In determining its funding needs and making decisions on resource needs and allocations, the Centre should ensure that it is able to add new information to the collection and undertake research that adds to the collection or leads to the development of new and updated information products. Current, comprehensive and easy-to-use information is at the heart of the value-added provided by the Centre.

- **Existing and new revenue generating opportunities must be able to cover their direct costs, including benefits and other direct overheads, and make a contribution to the Centre's core costs.** If new activities and/or products do not cover their costs and make a contribution to other costs within a reasonably short time frame then they will potentially harm the viability of the Centre. This suggests that proposed new products/services should be supported by business cases. Similarly, consulting projects that may lead to enhanced or new products and services should be regularly reviewed to ensure that they are meeting interim mileposts and keeping to budget.

- **Priced products and services should not be in direct competition with existing, private sector products.** This may call for a fine line in the way opportunities are assessed given the potential for partial overlaps. Evidence from the evaluation surveys and from information compiled by CCOHS indicates that users do not consider CCOHS products to be in direct competition with other suppliers' products and that its product prices are not artificially low.

B. FUNDING LEVEL REQUIRED TO PUT THE CENTRE ON A MORE SECURE FOOTING

CCOHS has been able to operate over the last 5-8 years by staying highly focused on meeting immediate needs and minimizing expenditures designed to maintain the integrity of its systems. Human resource levels have also been held down and the use of contracted professional services increased to meet peaks in demand and assist with consulting projects.

The Centre's total annual funding requirement has averaged approximately $7 million over the last 3-5 years. If the value of service provided without charge by other departments is excluded, this annual requirement falls to approximately $6.7 million. A continuation of this level of funding will only enable CCOHS to maintain a "bare bones" scale of operation and limit its ability to support and enhance current products and distribution methods, and develop new products to meet emerging OHS needs.

We estimate that a further $1.05 million in annual funding will be required to strengthen the Centre's systems and ensure that its products and services continue to provide value to users, to take its total annual funding requirement to $7.7 million.

The proposed allocation of this additional funding is summarized in Exhibit VI-1. Key activities that could then be undertaken include:

- **Marketing and client support expenditures**—for additional human resources (estimated at 5 FTEs) plus promotional expenditures (e.g., advertising, conferences/trade shows)—to retain the existing client base and build new demand for both free and priced services. Part of this effort will go to increase revenues from priced products and/or seek ways to arrest the decline in Core products.

- **Technology.** CCOHS estimates that it needs an additional $200,000 per year to strengthen and maintain its information technology infrastructure, and thereby enhance both the management of its information collection and dissemination of both free and priced products and services.

- **Information-related costs**, such as royalties paid to information suppliers and software license costs, are becoming an increasingly significant cost item.

- **Product development and research.** The Centre's ability to maintain the quality, relevance and ease of use of its products and services is vital to its relevance to users, and thus, the achievement of its mandate. In turn, an ongoing rate of product enhancement and new product development will underpin efforts to generate cost recovery revenues.

Exhibit VI-1 Changes in the Mix of CCOHS Funding

	Salaries & Employee Benefits	Prof. & Special Services	Information	Capital Assets	Total ($,000)
Marketing/client support	$300	$100			$400
Technology				$ 200	200
Information			$ 50		50
Product Development	200	200			400
Total	**$500**	**$300**	**$50**	**$200**	**$1,050**
% increase over actual 2000-01 expenditures:[1]	**11%**	**30%**	**16%**	**114%**	

(1. From audited 2000-01 financial statements.)

C. POTENTIAL FUNDING OPTIONS

CCOHS has five potential funding options, as listed below and reviewed in Exhibits VI-2 to VI-6. This review examines critical success factors, risks, and potential costs and benefits/outcomes for each of the identified options:

- Increase product prices.
- Increase the number of account customers and/or sales per customer through strengthened marketing.
- Develop and market new, revenue-generating products.
- Sustained increase in Voted Appropriation under Main Estimates to CCOHS.
- Changes to CCOHS status under the Financial Administration Act (FAA).

Exhibit VI-2 Potential Funding Option #1 – Increase Product Prices

A. Scope

- Implement across-the-board price increases for all priced products, over and above increases to allow for inflation.

B. Critical success factors

- Ability to pass on significant price increases without offsetting customer losses (to alternative information services and/or users choosing to obtain information using Internet searches.
- Development and management of guidelines/policies controlling terms and limits of discounts and negotiated prices to ensure maximum revenue gains.
- Customer communications—to provide advance notice of changes and to explain the reasons/rationale for price changes.

C. Risks

- Insights from user surveys and supplementary key informant interviews suggest that willingness to pay higher prices for CCOHS products is not an issue for most customers, if the increase is no more than 10-15%. However, acceptance, and affordability, of an increase of this magnitude would not be uniform across all customer segments and products, and demand from some key user groups could be adversely affected.
- Any increase would be best phased in over a number of years, meaning that CCOHS would face a short-to-medium term funding gap.
- Potential for achievement of the mandate of CCOHS to be compromised (or perception thereof), particularly among partners (provinces/territories, labour employers).
- User resistance—based on arguments that prices are not structured to recover costs of private benefits alone (i.e., used to subsidize costs associated with public benefits).
- A single price adjustment may not place the Centre's funding on a sustainable basis—gains would be eroded by cost increases and revenues would continue to be under pressure if products are not renewed or extended.

D. Potential costs

- Relatively minor—relating to changes to invoicing and processing systems, customer communications and materials featuring product prices, and increases in royalties.

E. Potential outcomes and/or benefits

- Potential increases in revenues from increases in prices of priced products could cover **part** of CCOHS additional funding requirements.
- Potential revenue impacts of various average price increases (annual gross revenues, excluding project revenues and assuming no customer losses):

Average increase	***Potential gross revenue gains*** *(before marketing/sales costs and royalties*
10%	$286,000
15%	$429,000
20%	$572,000

- *Based upon the research findings, we expect that an average increase of 10-15% across all products is probably the maximum achievable, implemented over two years. A realistic estimate should also allow for some customer losses, of the order of ~3-5% (recoverable in the medium to longer term), resulting in a gain in annual sales revenues of about $275,000 to $400,000. Additional marketing costs (additional resources and promotional activities), royalties (which can be significant, e.g., 13% for Legislation Plus products), and payments to distributors would consume a significant proportion of the gross margins on these sales.*

Exhibit VI-3 Potential Funding Option #2 – Increase the Number of Account Customers and/or Sales per Customer

A. Scope

- Increase revenues by increasing the number of account customers from the current level of just over 3,000 and/or sales per customer leading to an increase in the current average revenue of $674 per customer.

B. Critical success factors and risks

- Resources and capabilities to undertake systematic and sustained targeting of customer segments building on the success of such initiatives as the Academic Support Program. (Our high level analysis suggests that two segments have high average sales per customer and low penetration rates and may provide a suitable starting point for an expanded marketing effort: Oil, Gas, Mining, Food, Textile, Wood, Paper; and, Transportation and Public Utilities.)
- Strengthening of marketing resources and promotional expenditures to undertake the required level of sustained marketing and sales activities for priced products.
- Ensuring product offerings are relevant to needs of targeted customers.

C. Risks

- Investment in marketing resources and activities required in advance of any offsetting gains in revenues and contributions to other costs.
- Focus on generating revenue growth may compromise the ability of CCOHS to satisfy its mandate and support free services.
- No guarantee that a strengthened marketing effort to increase customer numbers and sales will lead to increased contributions. May only halt or slow current downward trends in existing key products, leading to continued flat sales revenues.

D. Potential costs

- Additional human resources for marketing and customer support, estimated at approximately $80,000 per FTE (including direct overheads).
- Additional promotional expenditures to reach targeted segments while maintaining current marketing and customer support activities, estimated at $20,000 per incremental FTE per year.
- Ongoing tailoring and evolution of priced products to meet needs of customers in targeted industry segments.

E. Potential outcomes and/or benefits

- Must achieve a relatively significant increase in customer numbers (or equivalent increases in average sales per customer) to fund additional direct costs and produce a contribution to other costs.
- To break even, each new FTE must increase the Centre's customer base by 5% (148 new customers) or increase average sales per existing customer by almost $35. Achievement of a significant contribution to other costs—say $100,000 - 200,000—would require a further 5-10% increase in customers.
- *A high risk; high potential gain option. However, whether or not this option is adopted as a funding option, CCOHS should undertake additional proactive marketing efforts to improve its profile and its understanding of and responses to prospective customers' needs.*

Exhibit VI-4 Potential Funding Option #3 – Develop/Market New, Revenue-generating Products

A. Scope

- Maintain a continuing level of new product research and development activity—linked to the Centre's consulting projects and access to other sources of OHS information and research—leading to the introduction new and updated products (free and priced).

B. Critical success factors and risks

- Ability to generate a continuing flow of new product ideas, drawing on feedback from users and partners, and monitoring of trends in OHS research and regulatory requirements.
- Ability to support, and fund, an ongoing level of research and development activity, either independently or (preferably) in partnership with other organizations with OHS interests.
- Management and control framework for generating and screening new product ideas, with regular reviews of progress and prospects at key milestones ("stage-gating").
- Achieving a balance between products that require ongoing maintenance and support, and thus have higher maintenance costs, and those where database maintenance and/or information compilation costs are incurred by the Centre's suppliers (where CCOHS typically achieves higher contribution margins).
- Ability to retain critical knowledge and skills developed through R&D work. In other words, it is preferable to engage permanent staff for a significant amount of R&D work (versus contracting personnel on a project-by-project basis) and to get flow-on benefits to the rest of the organization and products/services.

C. Risks

- Must balance focus on mandate with need to generate additional revenue.
- Long lead times for most new product developments mean that any revenue flows lag well behind development expenditures.
- CCOHS is operating in a mature market. Opportunities for "breakthrough products" are likely to be limited and application of new information dissemination technologies (as shown by CD-ROMs and Internet access) results in "cannibalization". However, CCOHS must continue to modify and refine products to make sure they maintain their ease-of-use advantages.
- Ability to attract partners willing to co-fund projects, and then (with other government partners) to manage the annual flow of funds against expenditures within constraints imposed by rollover provisions. Schedule II status also prevents CCOHS from seeking research grants available through other government agencies.

D. Potential costs

- Significant—CCOHS has tentatively estimated that continuing development of new products will require up to $500,000 annually on product development and research activities.

E. Potential outcomes and/or benefits

- Continuing rate of new/renewed product introductions enabling revenue maintenance or enhancement.
- *Potential scale of revenue gains and their timing cannot be predicted. We expect, based on the characteristics of past new product developments at CCOHS, that most new/enhanced products can be expected to result in incremental revenue gains (versus significant revenue gains).*

Exhibit VI-5 Potential Funding Option #4 – Seek a Sustained Increase in CCOHS Voted Appropriation

A. Scope

- Develop and present a business case to Treasury Board to justify an increase in the voted appropriation to CCOHS. This case should be based on three basic positions: the strong public benefits orientation in the Centre's mandate and services, the guidelines for applying cost recovery to information products that inform the public about dangers to health and public safety, and the significant benefits to society from improvements in workplace health and safety that lead to even small reductions in the number of workplace accidents and deaths.

B. Critical success factors and risks

- Strong case required, focusing on:
  - Risks that viability will be endangered if current funding arrangements and levels are maintained.
  - Contribution made by the Centre to social benefits (improved workplace safety and health).
  - Dependency on core collection of current OHS information.
  - Dependency of core information collection, and by extension, CCOHS products and services, on information management systems and technology. This includes the need to keep information dissemination technologies up-to-date (as integral parts of the products and services provided).
  - Need to maintain free distribution of OHS information, and the benefits to workplace health and safety that flow from the availability of such information.
- Need to demonstrate that expected revenue levels will be unlikely to generate required level of funding (i.e., expected to achieve low growth) after covering costs of additional marketing and customer support activities.

C. Risks

- If the business case is not accepted the Centre's long term viability will be jeopardized due to the gap between current projected public funding levels and the level required to sustain operations.
- CCOHS will continue to be funded on a year-by-year basis, with continuing issues around roll-overs.

D. Potential costs

- Of the order of $3.7 million to cover projected gap between expected revenues (approximately $4 million per year, with some potential for limited growth), and projected funding requirements of approximately $7.7 million (excluding ~$0.3 m. for accommodation services provided without charge) that appear necessary to ensure the long-term viability of CCOHS. This compares to current public funding level of $1.65 million plus supplementary funding of $0.6 million for a total of $2.25 million, and projected future annual funding level of $1.65 million. (from 2000-01 Main and Supplementary Estimates, and CCOHS' 2001-02 Report on Plans and Priorities).

E. Potential outcomes and/or benefits

- Main Estimates appropriation of $3.7 million would enable CCOHS to take a more strategic approach to the development, delivery and management of its services, and supporting operations and infrastructure, as opposed to managing on a short-term year-to-year basis.
- *A $3.7 million appropriation will put CCOHS close to a 50:50 balance between public appropriations and cost recovery revenues. This level of cost recovery is still high compared to similar information providers but would better enable the Centre to achieve its mandate without having to overcome the significant hurdle imposed by the current 60%+ level of cost recovery.*

Exhibit VI-6 Potential Funding Option #5 – Seek Changes to CCOHS Status Under FAA

A. Scope

- This option is not an alternative to each of the previous four but an extension under which CCOHS could gain additional flexibility in its financial management and planning, principally in the areas of financing working capital, managing multi-year revenue flows, and financial management processes.
- Requires legislative change to move CCOHS from Schedule II of the FAA to Schedule III (i.e., becomes a crown corporation) or amendments to the CCOHS Act.

B. Critical success factors and risks

- Ability to make a sound case for changing CCOHS status, in combination with acceptance of fact that public appropriation levels will still need to be increased.

C. Risks

- Legislative changes require a substantial amount of time. Regardless of any legislative initiatives, CCOHS will need to achieve changes in its funding arrangements (as outlined in the previous options).
- Typically, there is an expectation that crown corporations will operate in a commercial (and competitive) environment. Conversion of CCOHS to a crown corporation status would appear to run counter to its legislated mandate and powers, which focus on the provision of services expected to realize social benefits for individual Canadians.
- Tripartite partners—provinces/territories, labour and employers—may not support a change of this nature and withdraw their support.

D. Potential costs

- Costs associated with supporting the case to change the current status and/or legislation of CCOHS—management time and costs, legal counsel—plus costs to bring management systems and practices into compliance with the new status.

E. Potential outcomes and/or benefits

- Enhanced ability to manage financial resources, undertake long-term strategic and financial planning and potential access to a broader pool of funding sources for R&D.
- *The risks and delays associated with opening up the legislation outweigh the potential benefits.*

D. PREFERRED FUNDING STRATEGY

The current level of funding and revenue generation enables CCOHS to maintain a minimum level of service across both its free services and priced products. It faces significant difficulties in funding and undertaking activities required to maintain the currency of its core collection, take advantage of advances in information management and dissemination technologies, and continue to enhance both its core competencies and the value of its products and services.

We believe a strong case can be made for increased public funding of the Centre, in response to the potential impact of information production and dissemination in improving workplace health and safety. Even small improvements in occupational health and safety can

have significant paybacks for society, because of the high social costs of workplace injuries and accidents. At the same time, the fact that users obtain private benefits from the application of OHS information—particularly in situations where their access to, and use of, the information is facilitated and costs of information searches reduced—means that a continuing level of cost recovery is justified. Cost recovery also provides a catalyst for the Centre to seek more efficient methods and utilization of its limited resources.

Thus, we believe the preferred strategy for CCOHS to secure a more stable and sustained funding base is to:

- **Seek an increased level of public funding through the government's Main Estimates,** sufficient to put it on a more viable long-term footing. Our high-level analysis suggests that the Centre requires an amount of approximately $3.7 million (in current dollar terms). Funding in excess of this level could permit CCOHS to accelerate the development of new products and services or enable it to better respond to the powers defined for it in the *CCOHS Act.*

- **Maintain or slightly increase current levels of cost recovery revenue.** Current revenue trends suggest the outlook is for sales of Core products to decline (annual average rate of change since 1996-97 was –3.1%), specialty products to grow (+12.8% per year since 1996-97) assuming demand for legislative products or similar remains strong, and other revenues (mostly projects and publications) to decline slightly (-2.0% per year since 1996-97). The combined effect of these trends suggest that CCOHS will have difficulty generating substantial growth in sales beyond their current $4.0 – 4.4 million level. Maintenance of current revenue levels, and possible achievement of some growth, will require:

  - Additional marketing efforts designed to increase the number of customers from industry segments that have good potential for expansion, and to increase average sales per customers in segments where potential sales of the most popular products have not been maximized. This marketing initiative should be complemented by complementary communications activities designed to increase awareness of CCOHS and its services (free and priced) within industry segments with high OHS risks.

  - Judicious price increases for priced products, concentrating on those that enjoy strong advantages over alternative products and/or are achieving consistent growth in demand or where current prices are out of line with costs and contribution levels.

Achievement of sustained marketing success will also depend on continuing evolution of the core information collection and dissemination capabilities, and in the longer term, on an ongoing rate of new product development and supporting research. Additional resources to undertake the required activities will also be necessary.

This strategy also recognizes that growth in revenues will not occur overnight, and will depend on the maxim of "spending money (in advance) to make money". Funding for this advance activity will need to come through public appropriations. Any subsequent increases in contributions from revenue growth, which cannot be taken for granted, will be used to support the enhancement of the CCOHS core information and systems infrastructure.

VII CONCLUSIONS AND RECOMMENDATIONS

A. KEY CONCLUSIONS

1. CCOHS plays an important role

The core objective of CCOHS is to provide Canadians with information about occupational health and safety that is trustworthy, comprehensive, and intelligible. The information facilitates responsible decision making, promotes improvements in the workplace, increases awareness of the need for a healthy and safe working environment, and supports occupational health and safety education and training.

To meet this objective, CCOHS maintains a portfolio of both free and priced products and services that draw upon a core collection of occupational safety and health information and the application of information management technologies. To be effective on a continuing basis, the Centre must remain on the leading edge of workplace health and safety knowledge.

2. The existing funding situation is not sustainable

Funding for CCOHS peaked in the early-90s and has declined substantially over the last ten years. Federal funding has fallen by 71 percent ($5.7 million) over the past ten years. Revenue from other sources has risen by 95% ($2.1 million) to offset a significant proportion of the decline in public appropriations. On the expenditure side, CCOHS made significant adjustments in its staffing levels and associated costs during the early-1990s and has maintained tight control of expenditures since.

Public appropriations have declined to the point where they now provide less than 40% of the Centre's total funding. A significant proportion of this funding is "at risk", that is, is not part of the main voted appropriation for the Centre but comes from supplementary appropriations where continuity and stability of funding cannot be taken for granted. For example, CCOHS' 2000-01 appropriation of $2.25 million included a one-time $0.6 million supplementary advance from the Treasury Board Contingencies Vote. Projected funding levels for 2002-03 and 2003-04 exclude this amount, giving CCOHS a projected program funding level of $1.65 million.

Dependence on revenues from cost recovery has risen from about 20% of funding ten years ago to over 60% now. Recent performance trends suggest that revenue levels have hit a plateau and may in fact fall unless CCOHS can update its existing products and develop new products to maintain the value it provides for users. These two trends suggest that CCOHS faces a combination of static or declining revenues from cost recovery and potentially unstable public funding.

3. CCOHS activities have strong links to workplace changes

The activities and products of CCOHS consist of information that is related to the promotion of occupational health and safety. The benefits that potentially flow from this consist of improved workplace conditions that ultimately lead to fewer illnesses, fewer injuries and fewer deaths. Reduced time loss and increased productivity are tied to these benefits. An evaluation design that relies on linking increased workplace safety to any particular CCOHS product or activity is not feasible. However, satisfaction with and use of information provided by CCOHS is a good proxy indicator of likely improvements in workplace safety. All of the interview and survey data that we collected support the conclusion that here is a high degree of satisfaction with and widespread use of CCOHS products and services. To the extent that CCOHS information is used to promote workplace change, the ultimate social benefits and increases to productivity can be very high.

4. Cost recovery by CCOHS is consistent with Federal policy

In overall terms, the approach to cost recovery at CCOHS adheres to the expectations of the federal government's *Cost Recovery and Charging Policy* while being sensitive to the overriding importance of the Centre's legislated mandate, to support the achievement of improved levels of workplace health and safety.

Based on these findings we believe that CCOHS is probably at the limit of what it can achieve in cost recovery revenues without harming its ability to achieve its mandate. Users of its priced products are already making a significant contribution to the funding of its core activities, which support the provision of both priced and free services.

B. RECOMMENDATIONS

The recommendations in this report are based on the findings of this study. The Centre is operating in an environment of uncertainty with its history of annual supplemental appropriations. The Centre has been living off its capital, making limited investments in maintaining its core resources and systems, including its human resources. Further reductions would threaten its long term viability. Our recommendations to ensure continuing financial viability are as follows:

Recommendation 1 - CCOHS must provide a range of products and services that enable it to satisfy its mandate—a source for unbiased technical information and expertise to support the efforts of governments, labour organizations, employers and individual Canadians to improve workplace safety and health—and undertake supporting research and maintain an operational infrastructure that ensures it can maintain and enhance this performance.

Recommendation 2 - The Centre should continue to offer free, confidential access to its Inquiries Service and web site (OSH Answers). These are the principal means of responding to citizens in need of specific OHS information.

Recommendation 3 - The Centre should ensure that opportunities to use cost recovery to generate revenues do not impede the delivery of the Centre's products and services, or divert attention from the achievement of the mandate. In particular, the Centre should not pursue revenue opportunities unless they significantly advance the OHS objectives.

Recommendation 4 - CCOHS must keep current its core information collection and the information technologies that the collection, the Centre's web site and many of its priced products rely on. This continuing development is central to the provision of up-to-date and comprehensive OHS information to users. The Centre needs to develop an updated strategy and set of priorities for selecting projects and partners, focusing on activities that will keep its products and services, and distribution channels/media, at the leading edge. Management systems for new product development and project management should also be reviewed in developing this strategy, to ensure optimal efficiency of expenditures.

Recommendation 5 – Continuation of the current funding structure, under which the Centre's annual funding through the Main Estimates if projected to stay at $1.65 million while achieving cost recovery revenues of $5.8 million is not feasible. We believe the the Centre will need total annual funding of approximately $7.7 million in order to satisfy its mandate and continue to develop its products, services and supporting systems. Public funding through the Main Estimates should be increased to approximately $3.7 million given that cost recovery revenues are likely to remain in the $4.0 – 4.4 million range. We believe a strong case can be made for increased public funding of the Centre, in response to the potential impact of information production and dissemination in improving workplace health and safety. Even small improvements in occupational health and safety can have significant paybacks for society, because of the high social costs of workplace injuries and accidents.

Recommendation 6 - CCOHS should maintain or slightly increase current levels of cost recovery revenue. Scope exists for increases in product prices – focusing on those products that enjoy strong advantages over alternative products and those that are achieving consistent growth in demand.

Recommendation 7 – CCOHS can strengthen its marketing efforts to increase the number of customers from industry segments that have good potential for expansion, and to increase average sales per customers in segments where potential sales of the most popular products have not been maximized. This is dependent upon the financial resources being made available.

APPENDIX A

Inquiries Survey

USERS OF INQUIRIES SERVICE

DISPLAY [Hello, my name is _____ . Could I please speak with **NAME**_____]

AL
[OKAY TO CONTINUE,
ON HOLIDAY/AWAY FOR SEVERAL DAYS,:**I WILL CALL BACK. THANK YOU.**
NUMBER NOT IN SERVICE,
NUMBER CHANGED,
NO ANSWER,
BUSY,
RESPONDENT NEVER AVAILABLE,
REFUSED,
LANGUAGE PROBLEM,
CALLBACK APPOINTMENT];

IF APPOINTMENT REFUSED THANK AND TERMINATE

RESPONDENT INTRODUCTION

DISPLAY [Hello, I am calling on behalf of the Canadian Centre for Occupational Health and Safety who have contracted us, CF Group, to conduct a survey for them of persons who have used the Inquiries Service in the last year. CCOHS has not provided us with any information about why you contacted them – only that you have used the service. The survey should take less than 10 minutes of your time and is for the purpose of evaluating their service to you and improving program delivery. ***To thank you for completing this survey, your name will be entered in a draw to receive a complete set of CCOHS health and safety guides***. Any information that you provide to us will be held in the strictest confidence and will be provided to CCOHS in aggregate form only that will not allow the identification of anyone who is surveyed. May we continue?],

AL
[YES,
NO,
DID NOT OBTAIN INFORMATION FROM CCOHS,
CALLBACK APPOINTMENT];

IF REFUSED OR DID NOT OBTAIN INFORMATION FROM CCOHS THANK AND TERMINATE
IF OKAY TO PROCEED

Q0:Q, QT [Q0 First, how many times have you or your firm used the Inquiries Service of CCOHS in the last year?],

POST [RECORD VERBATIM];

DISPLAY	IF ONCE IN Q0 SHOW DISPLAY BELOW [In the following questions, I would like to discuss the specific item about which you requested information from the Inquiries Service.],
DISPLAY	IF MORE THAN ONCE IN Q0 SHOW DISPLAY BELOW [In the following questions, I would like to discuss the last item about which you requested information from the Inquiries Service.],
Q1: OPEN QT	[Q1 First, what information did you or your firm call CCOHS to obtain?],
POST	[RECORD VERBATIM];
Q2:S, QT	[Q2 We are interested in knowing how this information was actually used. Was it…: (READ LIST)],
POST	[READ ALL OPTIONS AND RECORD **YES** OR **NO** FOR EACH OPTION],
MT	[Used to provide information to be disseminated for education or training purposes, Used for research purposes, Used for developing legislation or standards, Used by workplace health and safety committees, Used to help comply with occupational health and safety regulations, To develop best practices, To improve health and safety programs, Used for writing MSDSs, For personal use or information, Used for WCB claim or appeal, Used to gather information on new workplace chemicals, or Used for some other purpose (SPECIFY), DON'T KNOW/NOT SURE/DON'T REMEMBER];
AL	[YES, NO, DON'T KNOW];
Q3A:S, QT	[Q3A How many persons in your organization used the information provided by CCOHS? (READ LIST)],
AL	[One, Two to ten, 11-100, 101-500 501-1000 Or more than 1000, DON'T KNOW];

Q3B:S, QT	[Q3B How often do you personally use this information provided by CCOHS?],	
POST AL	[DO NOT READ LIST] [DAILY, MORE THAN ONCE A WEEK, ONCE A WEEK, SEVERAL TIMES A MONTH, MONTHLY, LESS THAN ONCE A MONTH, DO NOT USE PERSONALLY/NEVER USED PERSONALLY, DON'T KNOW/NOT SURE, REFUSED,];	
	IF Q3A >1 READ Q3C IF Q3A = 1 AND Q3B "DO NOT USE PERSONALLY/NEVER USED PERSONALLY" ASK Q3C	OTHERS TO Q4
Q3C:S, QT AL	[Q3C How many people did you share this information with or how many benefitted from the information? (READ LIST)], [1, 2-10, 11-100, 101-500, 501-1000, DON'T KNOW/NOT SURE, REFUSED,];	
Q4:S, QT	[Q4 Is the use of the information from the Inquiries Service related to changes in the workplace that might improve occupational health and safety? (READ LIST)],	
AL	[YES@, CURRENT CHANGES, YES@, FUTURE/PLANNED CHANGES, NO, DON'T KNOW];	
DISPLAY	Now I'd like to get your opinion of CCOHS Inquiries Service, based on the information you received. For this I'd like you to use a five point scale, where "1" means "very unsatisfied," 2 means "somewhat unsatisfied," "3" means "neither satisfied nor unsatisfied," "4" means "somewhat satisfied," and "5" means "very satisfied."	
POST	REPEAT SCALE AS NECESSARY	
Q5:S, QT	[Q5 Overall, how satisfied were you with the inquiry service?],	
AL	[1 – VERY UNSATISFIED, 2 – SOMEWHAT UNSATISFIED, 3 – NEITHER SATISFIED NOR UNSATISFIED, 4 – SOMEWHAT SATISFIED, 5 – VERY SATISFIED, DON'T KNOW/NO OPINION, REFUSED,];	

Q6:S, QT	[Q6	And how would you rate your satisfaction with the **timeliness** of the response?],
AL		[USE ANSWER LIST FROM Q5,];
Q7:S, QT	[Q7	How would you rate your satisfaction with the **knowledge and ability** of the staff to understand my needs?],
AL		[USE ANSWER LIST FROM Q5,];
Q8:S, QT	[Q8	How would you rate your satisfaction with the **courtesy** of the staff?],
AL		[USE ANSWER LIST FROM Q5,];
Q9A:S, QT	[Q9a	In the end, did you get what you wanted from CCOHS Inquiries Service?],
AL		[YES@, ALL, YES@, SOME, NO, DON'T KNOW/NOT SURE, REFUSED,];
Q9B:S, QT	[Q9b	What aspect of the information you received did you value most? (READ LIST)],
AL		[Content, Comprehensiveness, Clarity, Reliability, OTHER_____SPECIFY,];
Q10: OPEN QT	[Q10	What would you have done if you had not been able to get this information from CCOHS?],
POST		[RECORD VERBATIM];
Q11: OPEN QT	[Q11	Are there ways in which the Inquiries Service could be improved to meet your needs more effectively?]
POST	[RECORD VERBATIM];	
Q12A:S, QT	[Q12A	Are there other sources of occupational health and safety information of the kind you receive from the Inquiries Service that could be used instead of CCOHS?],

AL	[YES, NO, DON'T KNOW/NOT SURE/DON'T REMEMBER];	
	IF YES TO Q12A ASK Q12B AND Q12C	OTHERS TO Q13A
Q12B: OPEN QT	[Q12B What services are these?],	
POST	[RECORD VERBATIM];	
Q12C:S, QT	[Q12C How would you rate the usefulness of the information from these other sources relative to that provided by CCOHS? Are they… (READ LIST)],	
AL	[More useful for my purposes, About the same, or Less useful, DON'T KNOW/NOT SURE/DON'T REMEMBER];	ROTATE LIST
Q13A:S, QT	[Q13A Have you used any other CCOHS products or services in the last two years?],	
AL	[YES, NO, DON'T KNOW/NOT SURE/DON'T REMEMBER];	
	IF YES TO Q13A ASK Q13B to Q13C	OTHERS TO Q14A
Q13B: OPEN QT	[Q13B What services did you use?],	
POST	[RECORD VERBATIM];	
Q13C:S, QT	[Q13C Were you satisfied with the services you used?],	
AL	[YES, NO, DON'T KNOW/NOT SURE/DON'T REMEMBER];	
Q14A:S, QT	[Q14A Are there any products or services related to occupational health and safety that you would like to have provided by CCOHS?],	
AL	[YES, NO, DON'T KNOW/NOT SURE/DON'T REMEMBER];	
	IF YES TO Q14A ASK Q14B and 14C	OTHERS TO DISPLAY BEFORE Q15

Q14B: OPEN		
QT	[Q14B What products are these?],	
POST	[RECORD VERBATIM, DON'T KNOW/NOT SURE,];	
	IF PRODUCTS STATED IN Q13B ASK Q13C	
Q14C:		
QT	[Q14 What is the maximum you would be willing to pay for products such as this?],	
POST	[RECORD VERBATIM]; C$_____	
Q15:M OPEN		
QT	[Q15 Are you aware of OSH Answers, the free question and answer section on the CCOHS website?],	
AL	[YES, NO, DON'T KNOW];	
DISPLAY	[Now I would like to get some information about you and your firm, to help classify your responses];	
Q16: OPEN		
QT	[Q16 What type of organization is this?],	
POST	[RECORD VERBATIM; TO BE POST-CODED];	
Q17:Q,	RANGE 0-1000, DEFAULT 0	
QT	[Q17 How many locations does your organization have in Canada?],	
POST	[IF REFUSED CODE 0],	
Q	[----];	
Q18:Q,	RANGE 0-100,000, DEFAULT 0	
QT	[Q18 How many employees does your organization normally have, including yourself (IF MORE THAN ONE LOCATION IN Q15 ADD: in all of your locations in Canada)?],	
POST	[IF REFUSED CODE 0],	
Q	[------];	
Q19:Q,	RANGE -1 - 100, DEFAULT 0	
QT	[Q19 Approximately what percentage of these employees would be covered by a collective agreement?],	
POST	[IF REFUSED CODE –1],	DO NOT USE REFUSED IN AVERAGE
Q	[---];	

Q20:M, OPEN QT	[Q20 So that my work can be verified, could I please record your name?],
POST	[RECORD VERBATIM];
Q21:M, OPEN QT	[Q21 And what is your job title?],
POST	[RECORD VERBATIM];
	INCENTIVE DRAW INFORMATION? ***To thank you for completing this survey, your name will be entered in a draw to receive a complete set of CCOHS health and safety guides***. OBTAIN PERMISSION
	Thank you very much for taking part in this survey. All information provided by you will be held in strictest confidence.
	GENDER OF RESPONDENT LANGUAGE OF INTERVIEW PROVINCE

Table A-1 Number of Times Inquiries Service Used

Number	Frequency	Percent
Once	138	50
2 to 5	101	37
6 to 10	16	6
Over 11	19	7
Total	274	100

Table A-2 Information Sought from Inquiry Service

Information	Frequency	Percent
Chemical in the workplace	26	9
MSDS	18	6
Radiation - office equipment	11	4
Ergonomics	10	3
WHIMIS training info.	8	3
Fragrances	7	2
Soldering/welding fumes	6	2
Cleaning products/solvents	6	2
Fork lift equipment	6	2
Violence/harassment	6	2
Carinogens	5	2
Trips/fall (protection)	5	2
Mould	4	1
Eyewash	4	1
Carpal tunnel	4	1
Heat/temperature in the workplace	4	1
Photoceptic emissions	3	1
Asbestos	3	1
Lead in paint	3	1
Bird droppings	3	1
Use of ladders	3	1
Silica	2	1
Diesel fumes	2	1
Smoking	2	1
Laser safety	2	1
Dust	1	0
Mercury	1	0
Acid	1	0
Other	121	40

Table A-3 How the Information was Used

Used for...	Frequency	Percent
Information for education or training purposes?	167	57
Research	142	48
Developing legislation or standards	60	20
Workplace H&S committees	159	54
Complying with OHS regulation	192	66
Developing best practices	192	66
Improving H&S programs	210	71
Writing MSDSs	34	12
Information	163	55
WCB claim or appeal	30	10
Information on new workplace chemicals	69	23
Other	64	22

Table A-4 Number of Individuals Using CCOHS Information

Number	Frequency	Percent
1	71	25
2-10	105	38
11-100	66	24
101-500	18	6
501-1000	8	3
Or more than 1000	11	4
Total	279	100

Table A-5 Number of Times CCOHS Information Used by Purchaser

Number	Frequency	Percent
Daily	23	8
More than once per week	5	2
Once per week	7	3
Several times per month	11	4
Monthly	36	13
Less than once per month	165	60
Do not use	28	10
Total	275	100

Table A-6 Use of CCOHS Information Related to OHS Changes in Workplace

	Frequency	Percent
Yes, Current Changes	163	56
Yes, Future/Planned Changes	55	19
No	74	25
Total	292	100

Table A-7 Required Information Received from CCOHS?

	Frequency	Percent
Yes, all	221	75
Yes, some	42	14
No	33	11
Total	296	100

Table A-8 Most Valued Characteristic of Information Received

Aspect of Info.	Frequency	Percent
Content	147	52
Comprehensiveness	32	11
Clarity	35	12
Reliability	45	16
All of above	12	4
All other mentions	14	5
Total	285	100

Table A-9 Alternative Sources of Information

Source	Frequency	Percent
Internet	64	43
American web sites	19	13
Library	18	12
IAPA	8	5
Government web sites	8	5
Workers' H&S Centre	7	5
Provincial Ministry (Labour)	5	3
WSIB	5	3
Health Canada	4	3
Univerity web sites	4	3
Books/Texts/Magazines	3	2
Ont. Nursing Association	2	1
Doctors/hospitals	1	1
Other	110	74
Total	148	100

Table A-10 Satisfaction with CCOHS Inquiry Service

	Overall		Timeliness of Response		Knowledge&Ability of Staff		Courtesy of Staff	
Rating	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**	**Frequency**	**Percent**
Very unsatisfied	10	3	6	2	7	2	1	0
Somewhat unsatisfied	9	3	9	3	10	3	1	0
Neither unsatisfied nor satisfied	22	7	23	8	33	11	11	4
Somewhat satisfied	99	33	89	30	88	30	51	18
Very satisfied	157	53	169	57	153	53	212	77
Total	297	100	296	100	291	100	276	100

Table A-11 Possible Improvements to CCOHS Products/Services

Response	Frequency	Percent
Yes	125	51
No	121	49
Total	246	100

Table A-12 Existence of Other Sources of OHS Information

Possible Improvements	Frequency	Percent
Direct assess to information on-line	22	21
Shorter response time	17	16
Other mentions	13	12
Increase staffing	10	10
More specific/in depth information	9	9
Decrease price/free	7	7
Up to date information	6	6
Provide answers over phone	6	6
Easier access to information	5	5
Improve web site in general	4	4
Improve links to other web-sites	3	3
Provide training/education	3	3
Total	105	100

Table A-13 Alternative Sources of OHS Information

Sources	Frequency	Percent
Other libraries	28	24
Internet	25	21
IAPA	9	8
Regional H&S Centres	8	7
Ministry of Labour	6	5
NIOSH web site	5	4
CSST	5	4
WCB	5	4
Other libraries	5	4
OSHA web site	4	3
Health Canada	4	3
Books/periodicals/texts	4	3
Safe Workplace Association	4	3
MEDLINE	3	3
University libraries	2	2
CSA	1	1
Total	118	100

Table A-14 Use of Other CCOHS Products/Services in Previous Two Years

	Frequency	Percent
Yes	79	27
No	209	73
Total	288	100

Table A-15 Other Products/Services Used in Previous Two Years

Product/Service	Frequency	Per cent
Web site	26	34
OSH Anwers	4	5
MSDS CD	10	13
Chemical Information (ChemSo	4	5
Publications/books	20	26
Other	13	17
Total	77	100

Table A-16 Products/Services CCOHS Should be Providing (but is not)

Product/Service	Frequency	Percent
More databases	10	14
WHMIS information/training	7	10
MSDS database	5	7
Training courses	5	7
Brochures/newsletter	5	7
More environmental information	3	4
Videos	3	4
Manuals/booklets	3	4
Ergonomics information	2	3
Other	27	39
Total	70	100

Table A-17 Awareness of Existence of OSH Answers

	Frequency	Percent
Yes	164	56
No	131	44
Total	295	100

Table A-18 Type of Responding Organization

Type	Frequency	Percent
Government	52	18
Education	17	6
Health Care/Hospital	28	9
H&S Organizations/con	16	5
Other consulting	13	4
Non-profit organizations	10	3
Unions	8	3
Manufacturer	71	24
Other	82	28
Total	297	100

Table A-19 Number of Locations in Canada

Number	Frequency	Per cent
Less than 5	212	71
5 – 19	49	16
20 – 49	13	4
50 – 99	12	4
100 and more	14	5
Total	300	100

Table A-20 Number of Employees in Canada

Number	Frequency	Per cent
<20	102	34
20 – 49	21	7
50 – 99	28	9.3
100 – 499	54	18
500 – 999	19	6.4
1,000 – 9,999	59	19.6
over 10,000	17	5.7
Total	300	100

Table A-21 Proportion of Employees Covered by Collective Agreement

% of Employees	Frequency	Per cent
less than 10	132	44
11 – 25	7	2
26 – 50	25	8
51 – 75	29	10
76 – 90	55	18
91 - 100	52	17
Total	300	100

APPENDIX B

Web Survey

WEB SURVEY

DISPLAY	[This survey is being conducted by CF Group, a survey research firm. We have been commissioned to conduct a survey of persons who are using the web site of the Canadian Centre for Occupational Health and Safety.],
DISPLAY	This survey will take only a few minutes of your time. ***If incentive: To thank you for completing this survey, your name will be entered in a draw to receive a free year's subscription to all of the CCOHS products***. However, the information you provide to us in the survey will be held in strictest confidence and will be provided to CCOHS in aggregate form only.
Q1:Q, QT	[Q1 How many times have you visited the CCOHS website in the last year?],
POST	[RECORD VERBATIM];
Q2: OPEN QT	[Q2 In this visit, what information did you or your firm access the CCOHS website to obtain?],
POST	[RECORD VERBATIM];
Q3:S, QT	[Q3 We are interested in knowing how this information was actually used. Was it…],
POST	[RECORD **YES** OR **NO** FOR EACH OPTION],
MT	[Used to provide information to be disseminated for education or training purposes, Used for research purposes, Used for developing legislation or standards, Used by workplace health and safety committees, Used to help comply with occupational health and safety regulations, To develop best practices, To improve health and safety programs, Used for writing MSDSs, For personal use or information, Used for WCB claim or appeal, Used to gather information on new workplace chemicals, or Used for some other purpose (SPECIFY), DON'T KNOW/NOT SURE/DON'T REMEMBER];

AL		[YES, NO, DON'T KNOW];
Q4:		
QT	[Q4	How many persons in your organization used the information provided by CCOHS?],
AL		[One, Two to ten, 11 – 100, 101 – 500, 501 – 1000, Or more than 1000, DON'T KNOW];
Q5:S,		
QT	[Q5	Is the use of the information from the CCOHS website related to changes in the workplace that might improve occupational health and safety?],
AL		[YES@, CURRENT CHANGES, YES@, FUTURE/PLANNED CHANGES, NO, DON'T KNOW];
DISPLAY		Please provide your degree of satisfaction with the CCOHS website. For this, please answer on a five point scale, where "1" means "very unsatisfied," 2 means "somewhat unsatisfied," "3" means "neither satisfied nor unsatisfied," "4" means "somewhat satisfied," and "5" means "very satisfied."
Q6:S,		
QT	[Q6	Overall, how satisfied were you with the CCOHS web site?],
AL		[1 – VERY UNSATISFIED, 2 – SOMEWHAT UNSATISFIED, 3 – NEITHER SATISFIED NOR UNSATISFIED, 4 – SOMEWHAT SATISFIED, 5 – VERY SATISFIED, DON'T KNOW/NO OPINION, REFUSED,];

Table B-1 Number of Times CCOHS Web Site Visited

Number of times visited	Number of respondents	Percent
Less than 5	331	66
5 to 19	79	16
20 to 49	47	9
50 to 100	35	7
Over 100	7	1
Total	499	100

Table B-2 How Information from CCOHS was Used

Used to...	Frequency	Percent
To provide information to be desseminated for education or training purposes	229	46
Used for research purposes	147	30
Used for developing legislation or standards	30	6
Used by workplace health and safety committees	154	31
Used to help comply with OHS regulations	173	35
To develop best practices	163	33
To improve health and safety programs	206	41
For writing MSDS	30	6
For personal information	188	38
For WCB claim or appeal	7	1
Gathering information on new workplace chemicals	46	9
None	11	2

Table B-3 Number of Persons in Organization Using CCOHS Information

Number	Frequency	Percent
One	120	30
Two to ten	149	37
11 - 100	83	20
101 - 500	28	7
501 - 1000	7	2
More than 1000	19	5
Total	406	100

Table B-4 Use of CCOHS Information Related to OHS Changes in Workplace

	Frequency	Percent
Yes, Current Changes	125	32
Yes, Future/Planned Changes	156	40
No	111	28
Total	392	100

Table B-5 Satisfaction with CCOHS Web Site

Satisfaction	Frequency	Percent
Very Unsatisfied	68	16
Somewhat Unsatisfied	36	9
Neither Satisfied Nor Unsatisfied	20	5
Somewhat Satisfied	114	27
Very Satisfied	182	43
Total	420	100

APPENDIX C

Current Customer Survey

Survey of CCOHS Information Clients

This questionnaire has been sent to you as part of an Evaluation of the Canadian Centre for Occupational Health and Safety's information products. You have been selected for this survey because CCOHS's records indicate you ordered **PRODUCT 1**. An independent firm, ARC Applied Research Consultants, is conducting this survey. ***Your responses will be kept confidential. CCOHS will be provided with grouped data only.***

Please complete the questionnaire and return it by fax to ARC at 613-232-7102 by June 22, 2001. If you have questions about this survey, please call Doug Smith at 613-230-4394.

The names of all those completing this survey will be entered into a draw for a free year's subscription to the core products of CCOHS. The contact information below will be used solely for survey research and verification purposes, and to enter you in the draw.

Organization Name: _____

Your Name: _____

Your Title: _____

Address: _____

City: _____ Province: _____

Postal Code: _____ Tel: ( ) _____

Please answer the following questions about **PRODUCT 1**
(If you do not recall ever seeing or ordering this product, check here ☐ and fax back this page. Thank you very much.)

1. How did your organization use this product? PLEASE CHECK ANY THAT APPLY:

For academic research ☐1
For education or training ☐2
To assist in developing legislation or standards ☐3
To use with workplace health and safety committees ☐4
For preparing MSDSs ☐5
To assist in complying with occupational health and safety regulations ☐6
For WCB claims ☐7
To gather information on workplace chemicals ☐8
To improve health and safety programmes ☐9
Other [PLEASE SPECIFY]: _____ ☐

2. For how many years have you purchased **PRODUCT 1** from CCOHS?

One year ☐1 Two years ☐2 Three to five years ☐3 Over five years ☐4

3. How frequently is the information provided by CCOHS used.....? PLEASE CHECK ONLY ONE FOR EACH OF A) AND B)

	A) By you personally	**B) By others in your organization**
Daily	☐1	☐1
More than once a week	☐2	☐2
Once a week	☐3	☐3
Several times a month	☐4	☐4
Monthly	☐5	☐5
Less than once a month	☐6	☐6
Do not use	☐7	☐7
Don't know/not sure	☐8	☐8

4. How many persons in your organization directly or indirectly use the information provided by CCOHS? PLEASE CHECK ONLY ONE

One ☐1 Two to ten ☐2 11 - 100 ☐3 101-1000 ☐4 More than 1000 ☐5 Don't know ☐6

5. Are you using PRODUCT 1 to promote changes in the workplace that might improve occupational health and safety? PLEASE CHECK ONLY ONE

Yes, current changes ☐1 Yes, future changes ☐2 Yes, current and future changes ☐3 No ☐4 Don't know ☐5

If yes, please provide an example:_____

6. Does this product: PLEASE CHECK ANY THAT APPLY

Change attitudes ☐1 Affect equipment purchases ☐2 Affect workplace practices ☐3

7. How would you rate your level of satisfaction with the benefits you receive from PRODUCT 1.....?

	Not at all satisfied	Somewhat unsatisfied	Neutral	Somewhat satisfied	Very satisfied	Don't know/ not sure
a) Completeness	☐1	☐2	☐3	☐4	☐5	☐6
b) Usefulness	☐1	☐2	☐3	☐4	☐5	☐6
c) Clarity	☐1	☐2	☐3	☐4	☐5	☐6
d) Scientific validity	☐1	☐2	☐3	☐4	☐5	☐6
e)Reliability of information	☐1	☐2	☐3	☐4	☐5	☐6

8. How would you rate your level of satisfaction with the **customer support** for PRODUCT 1?

	Not at all satisfied	Somewhat unsatisfied	Neutral	Somewhat satisfied	Very satisfied	Don't know/ not sure	Support not used
a) Technical support	☐1	☐2	☐3	☐4	☐5	☐6	☐7
b) Content support	☐1	☐2	☐3	☐4	☐5	☐6	☐7
c)Timeliness of response to support requests	☐1	☐2	☐3	☐4	☐5	☐6	☐7

9. If you are not satisfied with support timeliness, please indicate what timeframe for response you would find acceptable:

_____

_____

10. How could PRODUCT 1 be improved?

_____

_____

_____

11. Thinking of the current price that you now pay for PRODUCT 1, how high would the price have to be for you to discontinue purchasing it?

$_____ Price I currently pay (specify US$ or CDN$)

$_____ Price at which I would no longer purchase (specify US$ or CDN$)

12. If you stopped purchasing the product at the price shown above, would you:

Stop using this type of product altogether ☐1
Collect the information myself ☐2

Buy a related product from another vendor ☐3 > Please specify_____

13a) Do you use the Inquiries Service of CCOHS?

Yes ☐1 No ☐2 Don't know/not sure ☐3

13b) How many times have you used this service in the last year? _____ times

13c) How satisfied are you with the quality of this service?

Not at all satisfied	Somewhat unsatisfied	Neutral	Somewhat satisfied	Very satisfied	Don't know/ not sure
☐1	☐2	☐3	☐4	☐5	☐6

14a) Do you use the CCOHS website?

Yes ☐1 No ☐2 Don't know/not sure ☐3

14b) How many times have you used this website in the last year? _____ times

14c) How satisfied are you with the quality of this website?

Not at all satisfied	Somewhat unsatisfied	Neutral	Somewhat satisfied	Very satisfied	Don't know/ not sure
☐1	☐2	☐3	☐4	☐5	☐6

15. How important to you is it for CCOHS to offer free services of the type provided through the Inquiries Service and OSH Answers on the CCOHS website?

Not at all important	Somewhat unimportant	Neutral	Somewhat important	Very important	Don't know/ not sure
☐1	☐2	☐3	☐4	☐5	☐6

16. Are there other products/services from organizations other than CCOHS that could be used instead of PRODUCT 1? If so, please describe them:

_____

_____

17. How do you rate the usefulness of these other products/services relative to those provided by CCOHS?

More useful ☐1 About the same ☐2 Less useful ☐3 Not applicable ☐4

18a) Are there occupational health and safety products that you buy from other sources, in addition to the items you receive from CCOHS?

Yes ☐1 No ☐2 Don't know/not sure ☐3

18b) Please describe the two products from other sources that you use most frequently

_____

_____

_____

18c) How do you rate the usefulness of these products/services compared to those provided by CCOHS?

Product 1

More useful ☐1 About the same ☐2 Less useful ☐3 Not applicable ☐4

Product 2

More useful ☐1 About the same ☐2 Less useful ☐3 Not applicable ☐4

19a) Are there other products/services related to occupational health and safety that you would like to have provided by CCOHS?

Yes ☐1 No ☐2 Don't know/not sure ☐3

19b) Please describe these products:

_____

_____

_____

19c) For each item you mentioned in the previous question, what is the maximum you would be willing to pay for this new product/service?

Product 1$_____ **Product 4 $**_____

Product 2$_____ **Product 5 $**_____

Product 3$_____ **Product 6 $**_____

(Specify US$ or CDN$)

20. In what other formats you would prefer to receive CCOHS products?

On the Web (HTML) ☐1 DVD ☐2 Adobe Acrobat (PDF) ☐3 CD-ROM ☐4
Other (PLEASE SPECIFY]: _____

21. Overall, how important is CCOHS in supporting the occupational health and safety needs of your organization?

Not at all important	Somewhat unimportant	Neutral	Somewhat important	Very important	Don't know/ not sure
☐1	☐2	☐3	☐4	☐5	☐6

The following questions will help us to classify your responses:

22. What is your organization's main product or service?_____

23. How many locations does your organization have in Canada?_____

24. How many employees does your organization normally have in Canada? _____

25. Approximately what percentage of these employees are covered by a collective agreement? _____%

We would welcome any further comments regarding CCOHS's information products and services. USE ADDITIONAL SHEET IF NECESSARY

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for your assistance with this survey.
Your responses will remain confidential.
Please fax your completed questionnaire to ARC at 613-232-7102 by June 22, 2001.

FAX SURVEY RESULTS (HARD COPY ONLY)

APPENDIX D

Former Customer Survey

N0451 CCOHS FORMER CLIENTS INTERVIEW PROTOCOL

NAME: _____

TITLE: _____

COMPANY: _____

TEL #: _____

DATE OF INTERVIEW: _____

TIME START: _____

INTRO:

Hello, my name is ..... and I'm calling from ARC Applied Research Consultants, an independent firm, on behalf of the Canadian Centre for Occupational Health and Safety. Our firm has been hired to conduct an evaluation of CCOHS's products and services. I am calling you because you are listed as a past purchaser of CCOHS products. Could I take about 10 minutes of your time to ask you some questions about the CCOHS product you purchased and your satisfaction with it and the service you received?

1. Which CCOHS products did you purchase?

Subscription for databases (web site and/or CD ROM)

Contract with CCOJS for special projects or products

Publications/resources

2. For how many years had you purchased this product?

3. Why did you stop purchasing this product?

No longer require this type of information *(probe why not)*

Found alternative source of information *(identify and compare with CCOHS in terms of cost and quality)*

Product too expensive *(at what price would you have been willing to continue purchasing?)*

Other reason(s)

4. Do you use the CCOHS Inquiries Service? Y N

IF YES: How many times in a typical month?

5. Do you use the CCOHS web site? Y N

IF YES: How many times in a typical month?

6. Are there other products or services related to occupational health and safety that you would like to have provided by CCOHS? Y N

PRODUCT	DESCRIBE	MAXIMUM $$ WILLINGNESS TO PAY

Any other comments about products or CCOHS services?

Thank you etc.

TIME END: _____

COMMENTS:

A. TELEPHONE INTERVIEWS WITH FORMER CLIENTS OF CCOHS

Telephone interviews with a random sample of former clients of CCOHS's information products and services were carried out from June 11 to June 14, 2001. Completions were achieved with 30 Canadian respondents, 15 US and 5 International (in England, Italy, Sweden, Japan and Belgium). Respondents were in commercial firms as well as educational and government institutions.

The products for which the respondents had contacted CCOHS ran the gamut from one-time booklet purchases to multi-year database subscriptions, although more of the former than the latter was encountered during the interviews. Some could not recall the purchase clearly while others had the material at their fingertips. A number of the named respondents were organizational librarians or procurement professionals who had merely ordered what had been requested by others, and thus were unfamiliar with the use of the products, why they had not been reordered, or what other products their organization might need in future.

Use of CCOHS products and services varied from a one-time purchase to multi-year relationships (with some stating they had dealt with CCOHS going back 10 years or more). The average length of familiarity or purchase relationship was approximately 3.5 years.

Regarding why they no longer purchased the products in question, respondents fell into two main categories:

1) They had ordered the materials for a specific project or purpose and this had been served; the materials were no longer needed on an on-going basis (they had ordered a sufficient quantity for the time, or the project was completed). Most of these respondents stated that they would be very willing to purchase additional products from CCOHS if the need arose in the future.

2) They were unaware that the subscription had lapsed or were planning to (or had just) re-subscribed.

Only one respondent reported that he had found another supplier on an ongoing basis over an issue of price. A few respondents indicated that the portion of the product for which they had need originally was now available to them via the Internet, or at no additional cost via a supplier from whom they were already obtaining other materials. In some cases, CCOHS's own web site and e-group were cited as the source that replaced their need for the purchased item.

Roughly half of the Canadian respondents indicated they had used the CCOHS Inquiries service at least once. Very few reported using it frequently, more than once a month. Only four of the fifteen US respondents indicated they had used it. No International respondents indicated use of the Inquiries service.

Most of the Canadian respondents (20/26) indicated they had been to the CCOHS web site at least once. Few reported visiting frequently, several times a month. Seven of the 15 US respondents had been to the web site, but on an infrequent/occasional basis. Four of the five International respondents said that they had been to the CCOHS web site, with one indicating daily visits.

When asked about additional OH&S products they would like to see CCOHS provide, the majority of respondents could not think of any. The tendency for those that did was to cite specialized topics for booklets. Two references were made to a need for training materials (booklets, CDs or videos), with one respondent indicating she would be very open to seeing CCOHS get into this area, because of their reputation and history of producing good quality products. One person thought that a pay-per-use inquiry service that he could call and ask about hazards and safe handling practices for a specific chemicals on an as-needed basis would be better than the "overkill" of information he felt he had received via the CD he had ordered. Respondents were reluctant to set prices on their somewhat vague ideas for products but on the whole respondents wanted "more bang for their buck," with booklets under $10 and the CD or video training packages to be from $150 to $500 and more if interactive.

Respondents were largely very positive when they spoke about both the products they obtained and the way in which they were treated by CCOHS staff. Respondents spoke about their satisfaction with the quality of the products and with the timeliness of their delivery. They felt CCOHS staff members with whom they had dealt were professional and courteous, although one respondent did state he thought they could be abrupt when busy. "Very good service" "polite" and "very impressed" were statements heard frequently.

APPENDIX E

Key Informant Interviews

CCOHS EVALUATION

INTERVIEW PROTOCOL FOR KEY INFORMANTS

Name: _____

Affiliation: _____

Interview Date: _____

Phone/email:_____

A. INTRODUCTION

The Canadian Centre for Occupational Health and Safety (CCOHS) has asked ARC Applied Research Consultants to conduct an evaluation of the operation of CCOHS and a review of the cost recovery initiatives launched by CCOHS.

As part of the assessment we are conducting interviews with individuals who have been selected because of their experience with and knowledge of CCOHS.

We will be interviewing many people as part of this evaluation. No individual responses will be provided to CCOHS. The data will be aggregated to protect the confidentiality of your responses.

CCOHS has approved this data collection instrument. If you wish to verify this survey or have any questions please contact Ms. Bonnie Easterbrook at CCOHS. [905-572-2981 x-4401]

B. BACKGROUND OF RESPONDENT: SECTIONS B AND C IF USER OF CCOHS PRODUCTS AND SERVICES, OTHERWISE, SKIP TO D

I would like to begin by asking you about the CCOHS products and services your organization has used over the past year.

1. Which of the CCOHS products and/or services your organization has used?
2. Have you or has your organization promoted the use of CCOHS products services and capabilities?
3. Describe how have these products/services been used in your organization.

4. In addition to those products/services you purchase from CCOHS, does your organization obtain or buy Occupational Health and Safety (OHS) products/services from other organizations as well?

5. Have there been any changes in your organization's use of CCOHS products/services over time?

6. There is the view that the price that CCOHS charges for some products/services is inhibiting the ability to access the information. Others, however, suggest that given the value of the information, CCOHS could in fact charge more. What are your views on this?

C. ASSESSMENT OF THE PRODUCTS/SERVICES PROVIDED BY CCOHS

Thinking about the products/services your organization has purchased from CCOHS,

1. To what extent have CCOHS products/services:
   a) Met your organization's needs?
   b) Addressed a need that cannot be met by another information sources?

2. From your organization's perspective, what could be done to improve CCOHS products/services?

D. IMPACT OF CCOHS IN THE OHS COMMUNITY

Now i would like to ask you some questions about the impact of CCOHS in the OHS community, as a whole. (Note that for the purposes of this study, the OHS community includes anyone responsible for, or working on, OHS.)

1. How well known would you say CCOHS is:
   a) Among people in the OHS community in Canada?
   b) Internationally?
2. What is CCOHS best know for:
   a) Among people in the OHS community in Canada?
   b) Internationally?
3. To what extent do you think CCOHS has:
   a) Contributed to the growth of knowledge and research in OHS in Canada?
   b) Served as a catalyst to improve safety practices and/or change the workplace
      In general?
      In your organization?
      In your jurisdiction/region?

4. What role, if any, has CCOHS played in facilitating partnerships among workers, unions, employers and government with respect to OHS?

5. What additional public services should CCOHS provide?

E. REVENUE GENERATION

CCOHS provides a number of products/services with no fee. This includes the inquiries service and information on the web site. Other products have a price attached.

1. How important is it for CCOHS to provide an extensive range of products/services for which there is no fee?

2. a) Can you describe what, in your opinion represents the proper balance between information for which there is no charge for users and information products that are sold?

   b) Which types of information should be made available at no cost, and why?

3. How do you think current buyers of CCOHS products and services would react if CCOHS were to:

   a) Charge higher prices for existing services?

   b) Charge for services that are currently provided for free?

In order to provide information without a price to users, the costs of providing this service must be covered in some other way. Currently, revenues from sales cover approximately 60% of the total costs of operating CCOHS.

4. In your opinion, how should the costs not covered by sales be dealt with?

5. What role should provincial funding play?

6. What role should federal funding play?

7. Do you have other comments that you would like to make about CCOHS?

LIST OF KEY INFORMANTS

Name	Title	Affiliation
Cathy Walker	Director, National Health and Safety	National Automobile, Aerospace, Transportation and General Workers' Union of Canada
Marianne Levitsky	Director, Best Practices Branch Prevention Division	Workplace Safety and Insurance Board (WSIB)
Elizabeth Mills	General Manager and CEO	Ontario Service Safety Alliance (OSSA)
Donna Gill	Regulatory Information Administrator	Imperial Oil Products and Chemicals, Environment and Safety
Karin Jarin		CSA International
Dave Lindeman	Senior Program Specialist, Best Practices Branch, Prevention Division	Workplace Safety and Insurance Board (WSIB)
Maureen Shaw	President and CEO	Industrial Accident Prevention Association
Ed McCloskey	Director, Occupational Health and Safety Branch	Ontario Ministry of Labour
Pat Coursey	President	Safe Communities Foundation
Lisa Hawkins		Workers' Health and Safety Centre
Doug Green	Program Advisor	Construction Health and Safety
Vern P. Anderson	Chief, Technical Information Branch	National Institute for Occupational Safety and Health (NIOSH)
Jeff Parr	Executive Director, Occupational Health and Safety Division	Saskatchewan Labour
David Clark	Director of Financial Services	Workers' Compensation Board of the NWT and NU
Roberta Ellis	Vice President, Prevention Division	Workers' Compensation Board of BC
Ron Angus	Assistant Director, Risk Management Services	McMaster University
Maritza Tennassee	Regional Advisor for Occupational Health	Pan-American Health Organization (PAHO)
Elizabeth Malinowski		Shell Canada
Lance Nordstrom	Librarian	Workers' Compensation Board of BC
Andy Rauska	Director, Consulting Services	Workplace Health, Safety and Compensation Commission of NB
Michèle Parent	Director, Health and Safety	Bell Canada
Lawrence Segal	Toxicologist	Formerly with Health Canada, currently with Huntsman (Belgium)
Robert Wells		Canadian Union of Public Employees (Atlantic Region)
Jukka Takala	Director, INFocus Programme Safe Work	International Labour Office (ILO)
David Bennett	National Director, Department of	Canadian Labour Congress

	Health, Safety and Environment	
Anthony Pizzino	Senior Officer, Health and Safety Branch	Canadian Union of Public Employees
Ian Howcroft	Vice President, Ontario	Canadian Manufacturers and Exporters
Roy Hickman	Formerly Senior Director General, Health Protection Branch (retired)	Health Canada
Jim Allan	Formerly of Bell Canada	Currently with the Canadian Society of Safety Engineers
Kelly Gibney	formerly of BC Hydro	
Michael J. Hewitt	consultant in Nova Scotia	private consultant
Anya Keefe	Director, Research Secretariat	Workers' Compensation Board of BC
Wendy Newman	Chief Librarian	Brantford Public Library
Dave Keenan	Industrial Hygiene	Dow Chemical
Gordon Lloyd	Vice President	Canadian Chemical Producers' Association
Tim Meredith	Coordinator, International Programme on Chemical Safety (IPCS)	World Health Organization
Tom Farrell	Deputy Minister	Department of Labour and Immigration, Manitoba
Michel Pérusse		Noranda
Phillip Germain		Prairie Implement Manufacturers' Association (PIMA)
Carol Eamer		Formerly with the government of Alberta, currently with Keyspan Energy Canada
Deborah Smith		Private consultant
Warren Edmondson	Assistant Deputy Minister – Labour	Human Resources Development Canada
Ralph Stuart		University of Vermont
George Heyman	President	BC Government and Service Employees' Union (BCGEU)
William Worona	Director, Occupational Safety and Health and Fire Prevention Operations	Human Resources Development Canada
Barry Warrack	Chief of Strategy, Coordination, Workplace Safety and Health Division	Manitoba Labour
Hans-Horst Konkolewsky	Director	European Agency for Safety and Health at Work
Richard Blais		Workplace Health and Safety Commission, NB
Steve Will	General Manager	Pulp and Paper Health and Safety Association
Jenny Matkin		HSE Information Centre, Directorate of Information and Advisory Services, Health and Safety Executive
Wayne Miles	Chief	Immigration and Refugee Board

ARC Applied Research Consultants conducted interviews with key informants from a range of organizations, including business, labour, non-governmental organizations (both national and international and including Workers' Compensation Boards) and government (national and regional). A list of possible interviewees was provided to ARC by CCOHS. Interviews were conducted by phone during June and July 2001. The length of interviews ranged from approximately 20 minutes to one hour.

A. BACKGROUND OF RESPONDENTS

A total of 51 interviews were conducted with representative of business, government, labour and non-governmental organizations. The distribution of respondents based on the type of organization they represent is summarized in Exhibit E-1.

Exhibit E-1 Number and Distribution of Respondents, by Type of Organization

Type of Organization	Number of Respondents
Non-governmental Organizations – including Workers' Compensation Boards	22
Business	12
Government	11
Labour	6
Total	**51**

1. Products/Services Used

Of the 51 respondents, 43 indicated that they are direct users of CCOHS products/services while 6 are non-users. Two respondents were unable to answer some questions because the responsibility for purchase and use of CCOHS products rests with other individuals in their organization.

We asked respondents which products/services their organization has used in the past year. In many cases interviewees were unable to remember the name of the product/service or all the products purchased or used by their organization. The most often mentioned products/services cited by each group of respondents is summarized in Exhibit E-2. Percentages correspond to the proportion of respondents, by type, indicating that the product/service is used or purchased by their organization.

Exhibit E-2 Types of Products Purchased or Used by Respondents' Organizations

CCOHS Product/Service	Business (n=12)	Government (n=11)	NGOs (n=22)	Labour (n=6)	Total (n=51)
Inquiry Line	3 (25%)	1 (9%)	7 (32%)	3 (50%)	14 (27%)
Legislation disks	3 (25%)	5 (42%)	5 (23%)	1 (17%)	14 (27%)
MSDS	4 (33%)	3 (27%)	5 (23%)	2 (33%)	14 (27%)
CCOHS web-site	1 (8%)	-	8 (36%)	3 (50%)	12 (23%)
ChemInfo.	2 (17%)	1 (9%)	5 (23%)	1 (17%)	9 (18%)
Guides/publications	2 (17%)	1 (9%)	2 (9%)	2 (33%)	7 (14%)
Consulting services of CCOHS, including developing CD-Roms to the specifications of the organization	1 (8%)	3 (27%)	3 (14%)	-	7 (14%)
OSH Enviro	3 (25%)	-	2 (9%)	1 (17%)	6 (12%)

Based on responses from interviewees, labour organizations are the most frequent users of free services (CCOHS Inquiries Service and CCOHS web-site). Non-governmental organizations (NGOs) tend to use a broad range of CCOHS products and services. A number of representatives of NGOs at both the national and international levels indicated that their organization has a strong working relationship with CCOHS. This may explain the broad range of products used by NGOs since they may be more familiar than other organizations with the range of products and services available from CCOHS.
Of the 6 non-users of CCOHS products/services, four represented organizations at the national level and 2 are retired.

2. Promotion of CCOHS Products/Services

Of respondents who are users of CCOHS products/services, 40% indicated that their organization promotes the use of CCOHS products and services. Of the 6 non-users of CCOHS products interviewed, 3 indicated they promote the use of CCOHS products/services outside their organization.

3. How CCOHS Products/Services Used

Respondents from organizations that used or purchased CCOHS products/services were asked how their organization uses these products/services. The most frequently cited answers are summarized in Exhibit E-3.

Exhibit E-3 Uses for CCOHS Products and Services

CCOHS products/information used for:	Business	Government	NGOs	Labour	Total
Employee reference and research both on and off-site.	3	2	5	-	10
Verification of compliance with OHS regulations	5	2	-	-	7
Answering technical inquiries from employees, membership or public.	-	1	4	2	7
Source of information for newsletters and fact sheets for employees and members.	1	-	2	2	5
Interjurisdictional comparisons of H&S regulations	-	2	2	-	4
Development of training packages.	1	-	1	2	4

As can be noted from Exhibit E-3, business tends to use CCOHS product/services most frequently for verifying compliance with OHS regulations. NGOs are the most frequent user of CCOHS information for research and off-site uses. WCBs in particular tend to equip their inspectors with CCOHS CDs. Respondents from six organizations indicated that CCOHS information was available to employees on their organizations' intranet site thus providing access to CCOHS information to a larger number of employees.

4. Purchase of Other Health and Safety Products/Services

Respondents were asked whether their organization buys occupational health and safety (OHS) products/services from other sources. Twenty four respondents indicated that their organization purchased products/services from other sources besides CCOHS, 17 do not and 10 did not respond. In general, respondents whose organizations do purchase OHS products from other sources do so because similar products are not available from CCOHS or because they are used by the organization to complement material purchased from CCOHS. Material bought from other organizations that is not available from CCOHS includes Genium (material safety data sheets), posters, brochures, videos and course materials and some legal documents/legislative standards (particularly from the United States). One respondent noted that their organization purchases Silverplatter as a

complement to the CCOHS material but that Silverplatter is much more expensive and CCOHS is considered their primary source of information.

5. Changes in Use of CCOHS Products/Services

Interviewees were asked to comment on any trends or changes in their organization's use of CCOHS products/services.

- Three respondents indicated that their use of CCOHS products/services increased after having used contractual services provided by CCOHS.
- One indicated that their organization's use of CCOHS products has decreased since staff received training from CCOHS on how to search the internet for OHS information.
- Two respondents indicated that their organization uses CCOHS products/services less because increasingly more information is readily available for free on the Internet.
- Three respondents indicated that the number of employees using CCOHS information has increased since the information became available on their organization's Intranet.
- Two respondents believe that the use of CCOHS information by their membership/employees has increased because people want more and better information more quickly than in the past. The Centre's methods of delivering that information mean that more people are able to access CCOHS information.

6. Free Versus For Fee

We asked respondents to comment on the question of charging for CCOHS products/services and providing products/services for free. Twelve respondents noted that the issue of charging should be looked at from the perspective of the different groups accessing/purchasing the information. These respondents noted that the ability to pay and the level of information required by employees, unions and different sizes of businesses (small, large) differs. This led to the following suggestions for approaching the issue of which information to provide for free and which information to charge for:

- Discretionary pricing based on the size of the organization and ability to pay. Some of these respondents noted that some workers would not be able to pay for CCOHS information if there was a charge. (7 respondents)
- Distinguish between 'basic' information and information of a more technical nature. This view suggests that basic health and safety information should be available to anyone who wants it for free. More technical or specialized information should be charged for. (4 respondents)

- Developing a broader range of products and services to meet a wider range of needs. (2 respondents)

There was an overall acceptance among respondents that CCOHS cannot on it's own provide all products/services free of charge. In order for CCOHS to continue to provide free information, additional government funding will be required or CCOHS will have to continue to charge for some products/services. Three respondents feel that CCOHS' prices are fair. Another three respondents remarked that a substantial amount of occupational health and safety information is available for free over the Internet.

B. ASSESSMENT OF PRODUCTS/SERVICES PROVIDED BY CCOHS

1. Ability of CCOHS Products/Services to Meet Needs Not Met by Other Sources

Of the 43 respondents whose organizations are users of CCOHS products/services, 34 indicated that the products/services used by their organization meet their needs, 3 indicated that they did not completely meet their needs and 6 were unable to answer. Of those who reported that CCOHS products/services did not completely meet their needs, two reported the information provided by CCOHS meets most of their organization's needs but that the information is not comprehensive enough. Both noted that it would be difficult to have all their organization's information needs met by CCOHS alone. All but one respondent indicated that the products/services are of a high quality and well able to meet most of their organization's OHS information requirements.

Eighteen users of CCOHS products/services believe that CCOHS products/services meet needs that cannot be met by other sources, 13 believe that their needs could be met by other sources and 12 did not answer. Three respondents indicated that the credibility and unbiasedness of CCOHS information made it irreplaceable. Among those who believe that there are substitutes for CCOHS products/information, the most frequently cited were Silverplatter and Internet searches.

2. Improvements to CCOHS Products/Services

Respondents were asked to comment on what could be done to improve CCOHS products/services. Twenty six respondents made suggestions, including:

- Promotion and expansion of free services. One respondent suggested that more free products and services be made available on the internet. (4 respondents)
- More frequent updates of CD Roms/databases. (3 respondents)
- Broader range of products and services. (3 respondents)
- Improved user-friendliness. (3 respondents)

- Decreased cost for some customers. (2 respondents)
- Better vetting of MSDS for errors and/or emissions. (2 respondents)
- Expand chemical CDs. (2 respondents)
- Better control of shipping activities. According to one respondent errors are occasionally made in the shipping process. (1 respondent)
- Legislative CD could include energy and utilities information including a Code of Practice and municipal by-laws. (1 respondent)
- Improved user-support. (1 respondent)
- Making CCOHS a repository for WHMIS. (1 respondent)

C. IMPACT OF CCOHS IN THE OHS COMMUNITY

1. How Well Known is the CCOHS?

Respondents were asked to comment on how well known they believed CCOHS was among people in the OHS community in Canada. Overall, 21 believe CCOHS is very well known, 17 believe it is moderately well known, 6 believe not at all known and 7 did not respond. Of respondents indicating that CCOHS is moderately well known in Canada, 8 noted that CCOHS is much less known or unknown among workers and small and medium sized businesses. An additional four respondents who believe that CCOHS is only moderately known in Canada indicated that CCOHS is far less known outside of Ontario. These four respondents believe that CCOHS needs to increase its profile outside of Ontario. Suggestions on how to do this include; satellite offices in regions outside of Ontario; increased partnering with regional Workers' Compensation Offices (WCBs); and partnering with universities that provide OHS training.

ARC also asked interviewees to comment on how well known they believed CCOHS was internationally. Twenty three believe it is well known internationally, 8 believe it is moderately well known internationally, 3 that it is not known and 17 did not answer. Of the respondents who believe that CCOHS is well or moderately well known internationally, twelve noted that CCOHS appears to be better known internationally than in Canada. In the words of one interviewee, "Nobody in Canada recognizes the value of CCOHS. There is support from the trade unions and business associations but CCOHS doesn't have a broad based advocacy and they don't have the resources to build this." Two respondents believe that CCOHS is better known within Canada.

2. What CCOHS is Known For

Respondents were asked what they believe CCOHS is known for in Canada and internationally. Exhibit E-4 summarizes the most frequently cited responses for Canada by type of organization.

Exhibit E-4 What CCOHS is Best Known for in Canada

CCOHS known for:	Business	Government	NGOs	Labour	Total
CDs/databases	8	3	7	3	21
Quality of information	2	5	6	1	14
Free information	1	2	2	2	7
Publications	-	-	3	1	4

Interviewees commented that the information provided by CCOHS is seen to be credible and unbiased as a result of the tripartite Board of Governors.
Exhibit E-5 summarizes the most frequently cited responses to what CCOHS is best known for internationally.

Exhibit E-5 What CCOHS is best known for Internationally

CCOHS known for internationally:	Business	Government	NGOs	Labour	Total
CDs/databases	2	2	7	3	14
Quality of information	1	4	1	1	7
Innovative concepts with regards to communicating and managing OHS information	-	-	4	1	5
Publications	-	-	1	-	1

3. Contribution of CCOHS to Improved Workplace Safety

Thirty respondents believe that CCOHS has contributed to the growth of knowledge and research into OHS in Canada, 6 believe it has not and 15 did not answer. Some respondents remarked that they did not believe that CCOHS has done much in the way of research into OHS although they did believe that CCOHS has contributed to the growth of knowledge on OHS.

Twenty three respondents indicated that CCOHS has served as a catalyst to improving workplace safety in Canada, 3 believe it has not and 25 were unable to respond. Respondents commented that although they believed that was the case they were unable to assess the extent to which this has serviced to improving workplace safety practices. The general sense was that CCOHS must have had a positive impact but that it was impossible to measure quantitatively.

4. Facilitating Partnerships Among Stakeholders

One of key mandates of CCOHS is to facilitate partnerships among workers, unions, employers and government with respect to OHS. Respondents were asked to comment on the extent to which CCOHS has fulfilled this mandate. Twenty one respondents feel that CCOHS has done this to some extent, 14 believe it has not and 16 were unable to respond. Some respondents noted that CCOHS has done as much as can reasonably be expected within its budget constraints.

5. Additional Public Services?

Respondents were asked whether there were any other public services that CCOHS should be providing. Additional public services suggested by respondents included:

- Sponsoring and organizing national/regional conferences or forums. (7 respondents)
- Facilitating partnerships among stakeholder groups. (7 respondents)
- Increased marketing/publicity with regards to the existence of CCOHS and the services available. (3 respondents)
- Broader distribution of free information, particularly to workers. (3 respondents)
- CCOHS as a national repository for WHMIS data. (2 respondents)

D. REVENUE GENERATION

1. Importance of Providing Services

Most respondents (43 of 51) believe that it is crucial for CCOHS to continue to provide products/services for which it does not charge. Three respondents do not believe it is important. Respondents representing labour felt particularly strongly about this. They felt that workers must have a credible source of information for which there is no fee.

2. Balance Between No Fees and Fees For Service

The general sense among interviewees is that basic\general information should be provided free of charge while more specific and specialized products/services should be charged for. Information that individual workers may require in order to protect themselves should be available for free. One respondent from a labour organization believes that OHS complements universal health care in that each accident prevented means one less individual in the health care system.
Most respondents recognize that CCOHS cannot provide all products/services for free since these must be paid for somehow, either through government funding or revenues from sales.

3. Increasing Fees

We asked respondents to comment on what they think the reaction would be to higher prices for CCOHS products/services. Thirty six respondents felt able to comment, their responses are summarized in Exhibit E-6.

Exhibit E-6 Impact of Increasing Fees

Impact	Business (n=12)	Government (n=11)	NGOs (n=22)	Labour (6)	Total (51)
No impact	6 (50%)	3 (27%)	2 (9%)	1 (17%)	12 (24%)
Decreased sales/purchases of CCOHS products/services	-	1 (9%)	7 (32%)	3 (50%)	11 (22%)
Depends on the increase	1 (17%)	3 (27%)	3 (14%)	-	7 (14%)
Depends on the number and quality of substitutes	1 (17%)	1 (9%)	2 (9%)	-	4 (8%)
Depends on the size of the firm (larger firms are better able to absorb the increase)	-	1 (9%)	2 (9%)	-	3 (6%)

Twenty four per cent of interviewees believe that there would be no impact if CCOHS were to increase fees for products it currently charges for. In general these respondents feel that as long as CCOHS products remain competitively priced then the impact on buyers will be minimal, particularly for large businesses or organizations.
Representatives from labour were much less optimistic, 50 per cent of respondents from this group believe that increased prices will result in decreased purchases of CCOHS products/services. NGOs also strongly indicated that a price increase would result in decreased purchases of CCOHS products/services. Overall, there are indications that the ability to pay has a bearing on how organizations perceive the potential impact of an increase in the price of CCOHS products/services. Larger organizations are better able to absorb the price increases.

Interviewees were also asked to comment on the potential impact of CCOHS charging fees for products/services that are currently free. Of interviewees who responded to this question, only two believe that the reaction would be minimal. Anticipated reactions to fees for services currently provided for free include decreased use by employees and a move towards the use of free internet services. One representative from labour believes that labour unions would cease to promote CCOHS. Another respondent, from government, believes that provincial support for CCOHS would cease because the provinces currently provide some funding for the Inquiry Line.

4. Solutions to the CCOHS' Operating Deficit

According to financial reports of CCOHS, revenues from sales cover approximately 60% of the total operating costs of CCOHS. Respondents were asked to suggest how the shortfall could be dealt with. The following are suggestions provided:

- Complete funding from the federal government. (14 respondents)
- Co-funding between provinces and federal government. (3 respondents)
- Corporate funding. (3 respondents)
- Increased marketing and visibility.(2 respondents)
- Increasing partnering with business. (2 respondents)
- Increase the cost of some products but continue to provide some free services. (2 respondents)

Some respondents who believe that the federal government should fully fund CCOHS explained that CCOHS provides a service that benefits all Canadians. Individuals from labour and NGOs were particularly strong in their opinions that more government funding is required, especially at the federal level. It was noted by some of these respondents that the funding required by CCOHS is quite small relative to the current federal surplus and the long-term cost of work-related accidents in Canada.

5. Roles for Federal and Provincial Funding

We asked interviewees what role they feel federal and provincial funding should play. Of respondents who were able to answer (7 respondents are from jurisdictions outside Canada), 18 believe that the federal and provincial governments should share the financial responsibility for CCOHS. Seven respondents believe that CCOHS is the sole responsibility of the federal government because it is a federal entity and because it provides services that benefit all Canadians.

APPENDIX F

Key Informant Interviews – Pricing & Cost Recovery

CCOHS EVALUATION

KEY INFORMANT INTERVIEWS—PRICING AND COST RECOVERY

Name: _____

Position: _____

Organization: _____

Interview Date: _____

Phone: _____

Fax: _____

email: _____

INTRODUCTION

The Canadian Centre for Occupational Health and Safety (CCOHS) has asked ARC Applied Research Consultants and KPMG Consulting to conduct an evaluation of the operation of CCOHS and its approach to cost recovery.

As part of the assessment we are conducting interviews with a sample of individuals who have purchased and used CCOHS products to investigate the role product pricing plays in the demand for such products. We will be interviewing many people as part of this evaluation. No individual responses will be provided to CCOHS. The data will be aggregated to protect the confidentiality of your responses.

Should you have any questions regarding this or any other aspect of the evaluation you can contact either the Project Manager—Doug Smith at ARC Applied Research Consultants in Ottawa (613 - 230-4394)—or the Project Authority at CCOHS in Hamilton, Bonnie Easterbrook ((905) 572-2981 x.4401).

CONTEXT

1. Please briefly describe the nature of your role and the organization you work for.

2. Which of the CCOHS products are currently used in your organization?

   (For example: MSDS plus CHEMINFO
   CHEMpendium
   RTECS (Registry of Toxic Effects of Chemical Substances)
   Canadian enviroOSH Legislation series—National, Regional (Ontario or Eastern or Western), WCB Collection, Legislation plus Standards.)

3. How is this product (or these products) used by your organization?

4. What special advantages or benefits do the CCOHS products provide that are not available from other sources or suppliers?

5. And what weaknesses or disadvantages do they have?

6. In addition to the products you purchase from CCOHS, does your organization also buy or obtain Occupational Health and Safety (OHS) information products from other organizations? (IF YES) What are these products and who are their suppliers?

FACTORS CONSIDERED WHEN SELECTING OSH INFORMATION PRODUCTS

7. What factors do you consider when deciding to buy or obtain occupational health and safety (OSH) information products such as those offered by CCOHS?

8. Which of these factors would you say is most important in your decision making? And which would be second, and third, in importance?

9. *(If price not mentioned in Q.7.)* What order of importance does the price of the OSH information products have?

PRICING IMPACTS

10. Can you recall how much you pay for each of the CCOHS products that you currently use?

11. What impact would a 5% price increase have on your demand for CCOHS information products? And a 10%, or 15% increase?

12. And how would you satisfy your needs for occupational health and safety information if you were no longer able to afford the CCOHS products?

13. How significant is the cost of CCOHS information products for your organization? In other words, what percentage of your organization's total operating expenditures is spent of CCOHS products (or what percentage of your budget for OHS information)?

14. How do you think other buyers of CCOHS information products, would react if CCOHS were to:

    a) Charge higher prices for its existing priced products?

    b) Introduce prices for services that are currently free, for example, access to information through their Inquiries service or the "OSH Answers" on their web site?

PUBLIC ROLE AND VALUE OF CCOHS AND OSH INFORMATION PRODUCTS

15. CCOHS is funded through a combination of public funding and revenues from the sale of value-added information products. It has been suggested that by charging for some of its products that CCOHS is inhibiting access to this information by potential users. Others suggest that—because of the value of the information or the way in which various different pieces of information are "packaged" and maintained—CCOHS should be charging more.

    What are your views on this?

    a) What approach should CCOHS be taking to the pricing of its products?
    b) How should costs that cannot be recovered from users be funded?

16. Is there a way to set an appropriate balance between the provision of free and priced OSH information products?

    For example, are there certain types, or forms (e.g., on CD-ROM, Internet versus hard copy), of information that should be provided free of charge or for a nominal fee?

17. If YES—Why is that? What types of information fall into this category and which should be priced?
    IF NO—Why is that?

* * * *

18. Would you like to make any other comments on CCOHS and its products?

* * * *

LIST OF KEY INFORMANTS – PRICING & COST RECOVERY

List of Responding Firms:

- Abitibi Consolidated
- Janssen Cilag Farmaceutica
- Resort Municipality of Whistler
- ICWUC-UFCW
- Ontario Power Generation
- First Air
- Stochem Inc.
- University of Vermont
- HJ Heinz
- Envirome Inc
- Canon Canada
- Nexfor Inc.
- Industrial Colours and Chemicas
- Certified IND Hygiene Ltd

KEY INFORMANT INTERVIEWS – PRICING AND COST RECOVERY

Interviews relating specifically to pricing and cost recovery issues were conducted with 14 key informants representing business, labour, government, and non-governmental organizations. Products purchased by interviewees consist largely of CDs.

CCOHS products were used for a variety of reasons, however, the main reason was as a reference tool for:

- Ensuring compliance with changes in environmental laws and regulations.
- Answering technical inquiries from employees/workers.
- Development/writing of internal health and safety standards and programs.
- Looking up the registration status on pesticides used on products that are purchased.

Overall, the CCOHS products were viewed quite favourably. Only one client felt he didn't need the product, however, he had just taken over his position. Some of the key advantages of CCOHS products cited by respondents include:

- Easy to use/ user friendly.
- Most convenient source.
- Price.
- Quality of information/instant information.
- Saves time.
- Current/ regularly updated
- Nothing else comparable in the marketplace/few substitutes.

The key weaknesses of CCOHS products cited by interviewees include:

Cumbersome for some staff who are not familiar with computer systems (partly the system is not user-friendly, partly the staff require more computer training).

Hard to print – always need to reformat the document.

Updates are not frequent enough, only happen every 3-months. Internet is a source that is more real-time.

Some packages are prohibitively expensive and 99% of the information can be found in other less expensive CCOHS products (For example Chempendium – most of this information can be found in other CCOHS products).

Not always comprehensive – they still have to check other sources

While CCOHS highlights when changes have been made to the document, they do not note when parts of the legislation have been removed.

Clients mainly rely on CCOHS for Occupational Health and Safety information. Clients will occasionally do their own Internet searches. Sites used include: American Conference on Governmental Industrial Hygienists; safetyinfo.com, etc. Some respondents also buy journals, and books.

None of the 14 interviewees would take issue with paying a price increase of 5 per cent. Six interviewees would accept a price increase of 25% or more; two respondents indicated that price was not an issue.

Respondents were asked to cite the factors they considered when deciding to buy or obtain occupational health and safety material. The key factors, according to respondents include:

- Price.
- Completeness of information.
- Reliability of information.
- Quality of information.
- Suitability of product to organization's needs.

Respondents were asked to describe how they would adapt if their organizations could no longer afford the cost of CCOHS products. Many noted that they would have to do their own Internet searches. **Their time is free.** Some respondents will have to rely on the written materials supplied by manufacturers. They would have to keep a manual database that is seen as cumbersome and inefficient.

In general, the cost of CCOHS information products is minimal (less than a fraction of a percentage) relative to operating expenditures. Only one respondent noted that CCOHS products account for 60% of the literature budget. Overall, if the existing CDs were cheaper respondents say they would buy more or them. For example, if they were $200.

Many respondents believe that if CCOHS were to start charging a fee for services that are currently free, then clients will stop using them. Clients will simply go elsewhere on the Internet where services remain free. As well, it is difficult for many employees to get approval for certain expenses. Some noted that it is time consuming to fill in an expense report simply to pay a nominal fee in order to get a response to a question.

Responses vary significantly with regards to the ability to search for comparable information on the Internet. Some information (e.g., information on pesticides) can be found on the PMRA website, other information (e.g., updates on environmental laws and regulations) can not be found on the Internet.